DELAWARE RIVER—SHIP CHANNEL BELOW TRENTON, N. J.

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HEARING

BEFORE A

SUBCOMMITTEE OF THE COMMITTEE ON PUBLIC WORKS UNITED STATES SENATE

EIGHTY-THIRD CONGRESS

SECOND SESSION

ON

S. 2317

A BILL AUTHORIZING THE MODIFICATION OF THE EXISTING PROJECT FOR NAVIGATION ON THE DELAWARE RIVER, PA., N. J., AND DEL.

MAY 13, 1954

Printed for the use of the Committee on Public Works

UNITED STATES
GOVERNMENT PRINTING OFFICE
49986 WASHINGTON : 1954

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DELAWARE RIVER—SHIP CHANNEL BELOW TRENTON

THURSDAY, MAY 13, 1954

UNITED STATES SENATE, COMMITTEE ON PUBLIC WORKS,
SUBCOMMITTEE ON FLOOD CONTROL, RIVERS AND HARBORS,
Washington, D. C.

The subcommittee met at 10 a. m., pursuant to call, in Room 412, Senate Office Building, Senator Prescott Bush (chairman of the subcommittee), presiding.

Present: Senators Martin (chairman), Bush (chairman of the subcommittee), and Stennis.

Also present: Charles N. Kapnic, chief clerk; Eloise Porter, assistant clerk; Ellsworth W. Bassett and Theo W. Sneed, technical staff members.

Senator BUSH. The committee will please be in order.

The committee will open hearings on Senate bill 2317, authorizing the modification of the existing project for navigation on the Delaware River, Pennsylvania, New Jersey, and Delaware.

Without objection, the bill will be made a part of the record at this point.

(The bill, S. 2317, is as follows:)

[S. 2317, 83d Cong., 1st sess.]

A BILL Authorizing the modification of the existing project for navigation on the Delaware River, Pennsylvania, New Jersey, and Delaware

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Congress hereby declares that the project for further deepening the Delaware River from the Philadelphia Navy Yard to Trenton, New Jersey, for oceangoing vessels will greatly assist the national defense effort in this strategic valley and will afford opportunity for industrial growth and expansion urgently needed in this great diversified production area.

SEC. 2. The existing project, Delaware River, Pennsylvania, New Jersey, and Delaware, Philadelphia to the sea, authorized by the Act of June 25, 1910, as modified by subsequent Acts of Congress, and the existing project, Delaware River from Philadelphia, Pennsylvania, to Trenton, New Jersey, authorized by the Act of July 3, 1930, as modified by subsequent Acts of Congress, are hereby further modified to provide for the improvements recommended by the Chief of Engineers in his report dated January 23, 1953, at an estimated cost of $91,389,000.

SEC. 3. The construction shall be under the direction of the Secretary of the Army and the supervision of the Corps of Engineers subject to the conditions set forth in the report.

SEC. 4. There are hereby authorized to be appropriated such sums as are necessary to carry out the above projects.

Senator BUSH. As the first witness, we are very happy to welcome Senator Duff, the former Governor of Pennsylvania.

Senator, I understand you have to leave to attend an Armed Services Committee meeting.

Senator DUFF. That is right, sir.

Senator BUSH. Would you kindly proceed in your own way, then?

STATEMENT OF HON. JAMES H. DUFF, UNITED STATES SENATOR FROM THE STATE OF PENNSYLVANIA

Senator DUFF. All right, sir.

I am very obliged to the chairman for this opportunity to be heard first for the reasons he has stated. I have an important meeting of the Armed Service Committee.

I think everybody in the eastern part of the country knows of my interest, along with Senator Martin and the other Senators, in that immediate area, in the deepening of the Delaware River.

I don't believe there is any part of the United States that has had a greater industrial development over the last few years than in this particular area and, with the location of the steel plant up the Delaware River and with all the other plants that are coming in as a result of this new movement, it seems to me that the deepening of this river at this place, in order to afford seagoing vessels an opportunity to go right up to the place where these plants are located, is a matter of not only interest to the particular community where it is proposed to be made but is a matter of extreme importance for the welfare of the whole country and is a matter of national defense.

While I could expatiate on this for a long time, I am very sure with the technical information which you can get it would be very much better presented from that point of view than mine, but I merely wanted to be here and to express my extreme interest in this and my appraisal of the fact that it is one of the improvements that at this time is greatly needed and vastly necessary for national defense.

Senator BUSH. And you fully endorse this bill?

Senator DUFF. Yes, sir; in every particular.

Senator BUSH. Thank you very much, Senator.

Senator DUFF. Yes, sir. I am very much obliged to you for this privilege of being heard first.

Senator STENNIS. Mr. Chairman.

Senator BUSH. Senator Stennis.

Senator STENNIS. I regret very much I didn't get here to hear your complete statement, Senator Duff, but I certainly will read all of it.

Senator DUFF. Thank you.

I might say Senator Stennis and I carried the flag all last summer and we are very much in accord.

Senator BUSH. Thank you very much, Senator.

Senator DUFF. Thank you, sir.

Senator BUSH. Before we hear any of the other witnesses who are to come before us, perhaps Senator Martin would like to speak on this. He is chairman of the Public Works Committee, of course.

Senator Martin, would you care to speak before we call any other witness?

The CHAIRMAN. I am one of the sponsors of this bill.

The Delaware River, to my mind, is one of the most important ports of our Nation, not only from the standpoint of national defense but from the standpoint of our peacetime industry.

Philadelphia is the place where our Navy was born. That is where the Army of the United States was born. That is where the Marine Corps of the United States was born, and, of course, it is not necessary to tell any American that that is where the liberty of America was born and fought for to a successful conclusion.

From an industrial standpoint, there should be more shipping in Philadelphia than in any other port of our country.

I didn't intend to make any statement at all this morning because all of these fine folks here are so familiar with the whole situation; but during World War II, as you know, I was Governor of Pennsylvania and all our industries, our military and naval installations had to function at full capacity in the conduct of the war. I was surprised that we didn't send troops out from the Delaware ports, and after I investigated I found that there were two reasons: One was that the channel was not deep enough and the other was that the waters had been so contaminated by the sewage and refuse thrown into those rivers up northwest of Philadelphia, and I immediately started a program of cleaning those rivers up.

We went into an arrangement with the Government of the United States to spend $70 million for that purpose. Pennsylvania has put up its 35 million, but, fortunately, the costs were not as great as the estimates. So, the Federal Government is now making its final contribution at this session of Congress to complete that part of the plan of making the Philadelphia port what it should be.

Now, it has cost the Federal Government about $22 million less than the original estimate. This is the next step in it, and I sincerely hope the committee will report it favorably.

I didn't intend to say anything, Mr. Chairman, but I want to thank you for calling on me.

Senator BUSH. Thank you very much, Senator Martin.

General Itschner, Assistant Chief of Engineers for Civil Works.

Mr. LABRUM. Mr. Chairman.

The CHAIRMAN. Senator Bush, this is Colonel LaBrum. He is representing the Greater Philadelphia Chamber of Commerce, and I am not sure of his exact title.

Would you identify yourself for the record, Colonel?

Mr. LABRUM. Mr. Chairman, I am J. Harry LaBrum, chairman of the board of directors of the Chamber of Commerce of Greater Philadelphia and honorary chairman of the board of governors of the Greater Philadelphia-Delaware-South Jersey Council.

I arose to call to your attention the fact that Congressman King of Pennsylvania is here, and he has other work, and I wondered if you would be kind enough to hear from him at this time.

Senator BUSH. The Chair will be very happy to welcome the Congressman to this committee.

Senator STENNIS. Mr. Chairman.

Senator BUSH. Senator Stennis.

Senator STENNIS. May I say this: We are voting on some bills down at armed services, and I will have to ask you to excuse me. I will get back here as soon as I can.

Senator BUSH. All right, Congressman King, will you proceed, sir?

STATEMENT OF HON. KARL C. KING, A REPRESENTATIVE IN CONGRESS FROM THE EIGHTH DISTRICT OF THE STATE OF PENNSYLVANIA

Mr. KING. Thank you.

I am Karl King, Congressman from the west bank of the Delaware, in Morrisville, Pa. I live just a mile from the river and I am quite familiar with all of the territory on both sides of the river.

I won't take much time nor try to be technical because I am sure you have other witnesses who can go into all of the details.

I have an identical bill in the House and am very much interested in the extension of this Philadelphia harbor, for that is really what this deepening of the channel upstream is, an extension of the Philadelphia harbor, which is needed, as vital to Philadelphia and strategic in the sense that it stretches the harbor upstream some 20 miles and thereby makes available for industrial development some 40 additional miles of deep channel bank.

The space for this development is there, with plenty of room on both sides of the river, for the locations of those startegic industries that need the deeper channel.

Furthermore, the people are there. Trenton, N. J., and all of the new population developments, the housing developments on our side of the river have really prepared for the development which can come, needing only the deeper channel.

The impact of this thing, of course, will be nearby, and local, to a major degree, but this deepening of the channel is important not only to the territory stretching out for some 300 miles but, as the Senator has said, of vital importance to the Nation as a whole.

The people of this territory, I am sure, are all vitally interested in this development, back into the hinterlands of Pennsylvania and all over New Jersey.

I ask permission to extend my remarks at this point in the record.

Senator BUSH. Without objection, it is so ordered.

Mr. KING. Thank you.

Senator BUSH. We thank the Congressman very much for coming down here.

The CHAIRMAN. Mr. Chairman.

Senator BUSH. Senator Martin.

The CHAIRMAN. Here is a wire from Gov. Robert B. Meyner of New Jersey, in which he regrets his inability to be here today, but requests that Congressman Charles R. Howell of New Jersey be permitted to speak for him, and I would like at this point in the record to introduce a letter which I have from the Governor of New Jersey strongly endorsing this project.

Senator BUSH. Without objection, it is so ordered.

(The letter referred to is as follows:)

STATE OF NEW JERSEY,
OFFICE OF THE GOVERNOR,
Trenton, April 29, 1954.

Hon. EDWARD MARTIN,
Senate Office Building,
Washington, D. C.

DEAR SENATOR: Last week I wrote to the President indicating my interest in the proposed deepening of the Delaware River Channel as a necessary part of the development of the Delaware Valley.

I am informed the Army engineer's report from the Philadelphia District recommending authorization of the project now awaits action by your committee.

I believe it is unnecessary to point out to you and your colleagues on the committee the vital necessity, both from the viewpoint of our national defense and our peacetime economy, of creating modern, efficient waterways to serve the needs of this tri-State section covering parts of Pennsylvania, Delaware, anad New Jersey.

I earnestly request your committee to take immediate affirmative action so that the promises made by the Federal Government in 1938 to deepen the Delaware River Channel can be fulfilled.

Sincerely,

ROBERT B. MEYNER, *Governor*.

Senator BUSH. Is the Congressman from New Jersey here?

Mr. LA BRUM. Congressman Byrne from Philadelphia is here, however. If you please, could he be heard next?

Senator BUSH. Yes. We will be glad to hear the Congressman.

Congressman Byrne, we are very glad to welcome you to this committee.

Mr. BYRNE. Thank you.

Senator BUSH. Will you proceed in your own way?

Mr. BYRNE. Thank you, Mr. Chairman.

Senator BUSH. Would you correctly identify yourself for the record, sir?

STATEMENT OF HON. JAMES A. BYRNE, A REPRESENTATIVE IN CONGRESS FROM THE THIRD DISTRICT OF THE STATE OF PENNSYLVANIA

Mr. BYRNE. I am James A. Byrne, Congressman from the Third District of Pennsylvania.

Mr. Chairman and gentlemen of this committee, I appear here to record my support of the 40-foot channel in the Delaware River from Philadelphia to Trenton.

I represent the Third Congressional District in Philadelphia, comprising 19 wards that border the Delaware River from South Street to Frankford Creek. This area is highly industralized and for years has maintained a crying need for a deeper channel to lend the necessary assistance in continuing its expansion.

A 40-foot channel will not only provide the key to further industrial growth in my area, but will benefit the city's economy and the economy of the entire Nation.

Industrial development has closely paralleled various deepenings of the channel between Philadelphia and the sea. A very substantial industrial development has followed the 40-foot project undertaken in 1939, which gave deep-draft ocean-going vessels access to the Navy Yard and other ports on the lower Delaware. New industry moved into the area below Philadelphia, attracted largely by the facilities made available by the deepened channel.

Few locations in the Nation have shown as great an increase in industrial productivity, population, income, and taxables as the lower channel river area between Philadelphia and Wilmington.

For a second and equally important reason, the Delaware Valley is of strategic importance to the future security and national defense. The diversified industrial power of the river basin is a keystone in the Nation's arsenal. Much of this industrial capacity is equipped for

military production. The area includes such vital facilities as the Philadelphia Naval Base, shipyards, steel companies and the Frankford Arsenal. Other important installations are definitely planned which will further increase the value of the area to the Armed Forces.

Some of the factors bearing on the subject of security are obvious:

(1) The tidal reach of the Delaware River at no point between Delaware City and Trenton is closer to the Atlantic shore than 40 miles, the approximate air-mile distance from Trenton to the Atlantic. This air-mile distance reaches up to approximately 60 miles.

(2) The tidal reach of the river, which happens also to be the range of current major industrial expansion, enjoys a nominal and natural security from interruption of operation in the event of war enjoyed by few, if any, other ports on the North American Continent.

(3) The Delaware River port area—Wilmington to Trenton—thus is a natural fortress for the loading of supplies and the embarkation of personnel in the event of a national emergency.

(4) By rare good fortune, the Delaware River port area also happens to lie in the approximate center of a radius of 300 miles, touching the productive capacity and the transportation net of the heart of the northeast industrial quadrant, the vital heart of the Nation's production capacity.

(5) The Delaware breakwater, the reach of the bay and the tidal estuary all are successful baffles, so to speak, against the penetration of enemy sea-borne craft. Whether an enemy submarine, snorkel-equipped submarines, or even nuclear-powered submarines, the tidal range of the Delaware offers a high guarantee of security, per se, than any other port in the Nation.

In conclusion, therefore, the natural advantages and the enhanced security which the Delaware Valley-maritime-industrial nexus thus enjoys are, however, totally wasted unless joined to it is a major program of channel deepening and anchorage widening undertaken as an urgent project in the national defense.

Gentlemen of the committee, for the foregoing reasons, I, therefore, urge you to give prompt approval of this project.

Thank you.

Senator BUSH. Thank you so very much.

General Itschner.

General ITSCHNER. Colonel Milne is here today and is prepared to testify, with your permission, sir.

Senator BUSH. Colonel, will you come forward? Colonel, will you be kind enough, before you begin your testimony, unless you already intend to do so, to give us a little visual explanation from that map, as to just what we are talking about?

STATEMENT OF COL. W. D. MILNE, CORPS OF ENGINEERS, UNITED STATES ARMY

Colonel MILNE. I was going to ask your permission to do that, Mr. Chairman.

Senator BUSH. Thank you, sir.

Colonel MILNE. May I move this map over?

Mr. Chairman, before commenting on the bill in question, I would like to discuss the report of the Chief of Engineers and after finishing that discussion go into our specific comments with regard to the bill.

The report of the Chief of Engineers was authorized by resolutions of the Senate and House Public Works Committees adopted April 13, 1950, and May 21, 1951, respectively, and the report itself will be published as House Document No. 358 of the 83d Congress, 2d session.

The Delaware River rises in southeast New York and runs some 367 miles to Delaware Bay.

The area that we are concerned with this morning is between Trenton and Philadelphia and is one characterized by heavy industry, the basic industry of the country.

At the present time the authorized Federal navigation project consists of a channel 40 feet in depth, from water of that depth in Delaware Bay, extending up the Delaware River as far as the Philadelphia Naval Base. At that point the channel lessens to a depth of 37 feet and extends to Allegheny Avenue, and from Allegheny Avenue to the Pennsylvania Railroad bridge at Delair the channel is 28 feet in depth, and from the Pennsylvania Railroad bridge to Trenton the channel is 25 feet in depth and 300 feet wide.

In 1951, approximately 73 million tons of commerce were handled on this entire waterway. Of that 73 million, something in excess of 50 million tons was handled between Philadelphia and Delaware Bay, and approximately 8 million tons went from Philadelphia to Trenton, the commerce being primarily petroleum, petroleum products, coal, iron, chemicals, and sand and gravel.

Local interests have been concerned for some little time with the lack of depth in the reach between Philadelphia and Trenton. That concern has been increased in the last few years by the very intensive industrial development that is occurring along the banks of the Delaware between Philadelphia and Trenton particularly at Newbold Island, where the United States Steel Corp. has recently completed the large Fairless works.

Senator BUSH. Where is that on the map?

Colonel MILNE. Newbold Island is at this point here, Mr. Chairman.

Because of that concern, they have requested that consideration be given to increasing the depth of the channel and they have suggested that the entire channel from the Philadelphia Naval Base to Trenton be increased to a depth of 40 feet.

The Chief of Engineers has given serious consideration and study to that proposal. He finds that the Fairless works is, in fact, completed at Newbold Island and additional industrial activities are going on in the general area. His investigation of the traffic requirements discloses that there will be an appreciable amount of new commerce generated in this area as a result of the industrial improvements. Specifically, at the present time he feels that the Fairless works itself will require something in the neighborhood of 2½ million tons of iron ore to keep the plant going as well as about 1,300,000 tons of coal and 300,000 tons of petroleum products.

Now, that is the requirement as it exists at the moment. There is every reason to believe that the requirement will soon be increased to about 5,700,000 tons of iron ore and coal and, by 1960, we have reason to believe that the total requirements at the Fairless plant alone will be in the neighborhood of 13 million tons, of which over 10 million tons will be iron ore. Part of it will be consumed at the Fairless works; the remaining quantity of iron ore will be blended there and transshipped into the interior.

Now, in addition to this requirement at the Fairless works, there is a further movement of commerce to Trenton. Our studies have indicated that about a million eight hundred thousand tons of miscellaneous commodities will move on an improved channel to Trenton. That commerce would largely be lumber, petroleum products, and chemicals.

On the basis of our analysis of transportation savings, we find that an improved channel from Philadelphia to the Fairless works would result in savings on iron ore alone of 65 cents a ton for every ton that would be transported.

On coal, the savings would be about 55 cents a ton.

On petroleum products, the savings would be approximately 15 cents a ton.

On the movement of commodities to Trenton, the savings would vary from something in the neighborhood of 8 cents a ton to as high as $1.25 a ton.

Based on those very tangible savings, the Chief of Engineers believes that improvement to the existing channel is well justified.

Senator BUSH. Those estimates of savings are arrived at by calculating rival rates by the railroads or other forms of transportation or——

Colonel MILNE. The procedure is as follows, sir. There are two methods by which iron ore could move from Philadelphia to the Fairless works other than by deep-draft vessel. One method would be to complete unloading of the ore carriers in Philadelphia and then transport the ore by rail to the works. A second method would be to unload the heavy ore carriers and transport the ore by barge.

Our computations indicated that the cheapest alternative method would be to unload and transport by barge, and our 65 cents a ton saving is based on the increased cost of a barge movement as compared to a through movement by the large carriers.

I might point out, Mr. Chairman, at this point that the type of carrier that will be utilized by the Fairless works is a very large new carrier, which will have a capacity of 45,000 tons, and draw 36 feet or more in fresh water. It will have an overall length of about 700 feet and a beam of 100 feet.

That is an extremely large ore carrier, and I understand, several are presently being built.

As I said, on the basis of these estimated savings, considering the anticipated commerce to be generated, the project providing for improvement to the existing channel will be well justified and the Chief of Engineers has recommended it.

Specifically, he recommends that the channel from the Philadelphia Naval Base to Newbold Island be increased in depth to 40 feet and that the width be increased to 400 feet, and that from Newbold Island to the Trenton Marine Terminal that the channel be increased in depth to 35 feet and the channel width of 300 feet be maintained.

In his recommendations, he has included certain requirements of local cooperation. Among those requirements are the furnishing of all lands, rights-of-way, easements, and spoil-disposal areas; hold and save the Federal Government free from any damage that might accrue as a result of this construction; and contribute one-half of the cost of deepening the channel from 35 feet to 40 feet.

He further recommends that if local interests do not contribute one-half the cost of deepening between 35 and 40 feet, the channel be deepened only to 35 feet.

The recommendations of the Chief of Engineers have been furnished to the various Government agencies and to the States concerned.

The State of Pennsylvania endorsed the improvement, but felt that the requirements of a local cash contribution is not warranted.

The State of New Jersey likewise endorsed the recommended improvements, but also felt that the local cash contribution is not warranted. New Jersey also objected to the "hold and save" clause on the basis that there might be some salt-water intrusion into the ground water supply of New Jersey.

The State of Delaware has not commented on the recommendations of the Chief of Engineers.

The Bureau of the Budget, in its review of the report of the Chief of Engineers, had this comment, which I would like to read into the record:

> On the basis of information contained in the report, it is apparent that the alternately proposed 35-foot channel would not adequately meet the navigational requirements of the large ore vessels which would be used to supply the United States Steel Corp. plant at Newbold Island.
>
> It appears to us that any plan which contemplates throughout the economic life of the improvement the partial unloading of these vessels at Philadelphia before proceeding to Newbold Island would prove to be a temporary uneconomic arrangement which would ultimately have to be modified to provide for the 40-foot channel.
>
> It is apparent, therefore, that the 40-foot improvement is the only satisfactory solution and that it should be authorized and accomplished as a single operation in the interest of the greater transportation and construction economies involved.

Based on the——

Senator BUSH. Pardon the interruption, but this $91 million figure in the bill is the figure you propose which should be half borne by——

Colonel MILNE. No, sir. I will come to that, sir.

Senator BUSH. All right.

Colonel MILNE. Based on the document as submitted by the Chief of Engineers, it was estimated that the cost of a 40-foot channel to Newbold Island and a 35-foot channel to Trenton would have a federal cost of $73,593,000, including $349,000 for aids to navigation, and a non-Federal cost of $18,792,000, of which $18,145,000 would be a cash contribution. In the report, the cash contribution was referred to as about $18,000,000

Those costs revised to the fall of 1953 show a Federal cost of $78,334,000, including aids to navigation, and a non-Federal cost of $20,389,000.

Based on a 35-foot channel to Philadelphia, right through to Trenton, the Federal cost in the report was estimated at $55,349,000, including $349,000 for navigation aids, and the non-Federal cost at $47,000, or a total of $55,396,000.

This total cost for the 35-foot project revised again to the fall of 1953, is $59,394,000.

Based on the revised cost estimate, the annual charges for the 40-foot project, with the 35-foot extension to Trenton, are $4,680,000, and for a straight 35-foot channel, are $3,024,300.

The benefit-cost ratio of the combined 40-foot and 35-foot channels, based on the revised cost, is 1.8 to 1, and the benefit-cost ratio for a straight 35-foot channel is 1.62 to 1.

Senator BUSH. When you speak of the annual cost, will you define that for me, please?

Colonel MILNE. The annual cost includes interest and amortization on the original Federal and non-Federal investments, and the estimated annual increased maintenance cost due to increasing the depth of this channel.

Senator BUSH. When you speak or amortization, who is going to pay the money?

Colonel MILNE. The amortization charge is a factor in the method that we use to compute the economic costs for comparison with the benefits.

We take the overall cost, amortize it, add the interest and maintenance costs, and then compare that with what we estimate will be the annual benefits to accrue as a result of the improvement.

Senator BUSH. So, that is entirely a theoretical figure?

Colonel MILNE. That is correct, sir.

Senator BUSH. It isn't a cash figure; it is an estimate of benefits?

Colonel MILNE. It is an estimate of financial costs. The only actual cash to be paid by the Federal Government, in addition to the lump sum that goes into the cost of construction, would be that involved in the maintenance of the channel.

Senator BUSH. It is not a toll road?

Colonel MILNE. No, sir.

Now, that, Mr. Chairman, covers the report that the Chief of Engineers has submitted to the Congress.

I would like to comment specifically on the bill that is before this committee, and I think the best way to comment on that bill would be to read extracts from the proposed letter of the Secretary of the Army to the committee, I might point out at this time, Mr. Chairman, that that letter has just left the Secretary of the Army's office for review by the Bureau of the Budget. So, these comments do not necessarily reflect the attitude of the Bureau of the Budget but only that of the Chief of Engineers and the Secretary of the Army.

In the proposed comments on Senate bill 2317, the letter has these specific things to say:

> The Department of the Army has considered the above-mentioned bill. The purpose of the bill is to modify the existing project for Delaware River to provide for enlarging the navigation channel in accordance with a report of the Chief of Engineers.
>
> The bill refers to the report of the Chief of Engineers as being dated January 23, 1953. Actually, the report of that date is that of the Board of Engineers for Rivers and Harbors, and the final report of the Chief of Engineers is dated November 18, 1953, which report was transmitted to Congress on March 19, 1954.
>
> The report of the Chief of Engineers recommends as one condition of local cooperation that local interests contribute one-half of the incremental cost of increasing the depth of a certain portion of the channel to 40 feet rather than to 35 feet, such contribution being presently estimated at $18 million.
>
> The above-mentioned report from the River and Harbor Board of January 23, 1953 does not contain such a condition. Enactment of S. 2317 in its present form would authorize the improvements without the recommended contribution, which is believed to be a reasonable and proper condition of local cooperation. Accordingly, to make the bill consistent with the recommendation of the Chief of Engineers it would be necessary to revise it by striking the language in section 2 on page 2, lines 8 and 9, beginning with the word "January" and inserting the following: "November 18, 1953, at an estimated cost of $73,389,000."
>
> The report of the Chief of Engineers recommends that if the local contribution is not forthcoming when Federal funds are available for initiation of construc-

tion the authorization for increased deepening of that portion of the project referred to in the preceding paragraph shall be limited to a 35-foot draft channel. In this connection, your attention is invited to the report of the Bureau of the Budget, which accompanied the report of the Chief of Engineers that the amount of cash contribution proposed by the Chief of Engineers is reasonable, that the 35-foot channel would not adequately meet the navigational requirements and that the 40-foot improvement is the only satisfactory solution and should be authorized and accomplished as a single operation. To make the bill——

Senator BUSH. Just a second.

Coloned MILNE. Yes, sir.

Senator BUSH. Let me see if I understand you. The $73 million would apply only to the 35-foot channel, if that is all the money that is forthcoming, is that correct?

Colonel MILNE. No, sir. The $73 million is the estimated cost of the Government's share of the 40-foot channel——

Senator BUSH. Yes.

Colonel MILNE. Remembering that the Chief recommended that local people pay half of the extra cost.

Senator BUSH. Yes.

So, that is just the Government's share of the 40-foot channel?

Colonel MILNE. Yes, sir.

Senator BUSH. Now, you say if the other money isn't forthcoming that the 35-foot channel is recommended but it is not considered adequate?

Colonel MILNE. The Chief of Engineers, in his report, recommended that, if local contribution was not forthcoming, the project depth be confined to 35 feet.

The Bureau of the Budget, in its comments which I read, recommended that only a 40-foot channel be constructed. I was going to mention, in continuing with this letter from the Secretary of the Army, that he says this:

* * * To make the bill consistent with the Bureau of the Budget comment, it would be necessary to add to the end of section 2 the following additional wording:

"*Provided*, That the recommendation in the last sentence of the Chief of Engineers' report is not approved."

Now, continuing with the letter from the Secretary of the Army on the comments on this Senate bill, he has this to say:

The Department of the Army favors the authorization of the improvement proposed in S. 2317. However, your committee may prefer to consider authorization of the work in connection with a general river and harbor flood-control bill.

The cost to the United States is estimated to be $73,389,000 for construction if the bill is revised, while the cost would be $91,389,000 under the bill as now written. The estimated annual maintenance cost is $759,600. * * *

Senator BUSH. So, the difference between the 35- and the 40-foot channel is the difference between $73 million and $91 million, approximately; isn't that right?

Colonel MILNE. Not exactly, sir. The difference between $73 million and $91 million, or $18 million, is the required local cash contribution, which is half the $36 million difference in costs between the 35- and 40-foot channels.

Senator BUSH. Thank you very much, Colonel.

Is Mr. Schad here?

Mr. SCHAD. Yes, sir.

Mr. LaBrum. Mr. Chairman.

Senator Bush. Do you wish to make a statement yourself, sir?

Mr. LaBrum. Mr. Chairman, Congressman Scott from Philadelphia is here and he would like to make a statement, if he might be given that opportunity.

Senator Bush. Yes. We would be very glad to hear from Congressman Scott.

Mr. Scott. If Mr. Schad doesn't mind——

Mr. Schad. No. Go right ahead.

Mr. Scott. Thank you.

Senator Bush. We are very happy to welcome you before this committee, Congressman.

STATEMENT OF HON. HUGH D. SCOTT, JR., A REPRESENTATIVE IN CONGRESS FROM THE SIXTH DISTRICT OF THE STATE OF PENNSYLVANA

Mr. Scott. Thank you, Senator. It is nice to have a chance to be here.

I cannot undertake, obviously, to speak technically because I am learning as I go along from the Corps of Engineers as to what is required.

I think the important points I would like to make are that over on the House side there is complete unanimity of action so far as I am aware on the part of all members of both parties from the Philadelphia area, from South Jersey and as far up as Trenton, from Delaware, not only that we need the 40-foot channel from Philadelphia to the sea, but in the interest of national security we certainly also need such a channel substantially as recommended by the Corps of Engineers from Philadelphia to the Trenton area.

Speaking for myself, I would join with some of the other witnesses from the Philadelphia area in saying that we do not go along with the proposal of contribution from private interests or any form of control by private interests over a navigable waterway. We think that the principle is bad.

We observe that other public works' constructions are either approved and constructed by the Federal Government or are not constructed.

We of the Delaware Valley did not hear any proposal that there be private contribution for the construction of the St. Lawrence seaway.

I suppose we will have to call it a seaway, not an iceway now, as long as the proposal has left this body, or left the Congress.

No one seriously proposed that the St. Lawrence seaway be constructed in part by private capital. There was a proposal that there be a bond issue, which the House of Representatives refused to approve, stating, I think, the public policy in that very action.

We are concerned because we have in this area, running up from New England and down to Baltimore, what is certainly the American Ruhr, the most important industrial complex in the country, with steel plants in existence and to be constructed, representing the vitally needed expansion of our steel capacity for defense and industrial purposes.

We are concerned because we do not often come before the Congress requesting very large sums of money.

We are happy to see the tremendous development of the southern areas of the country and of the western areas.

We are glad to see the country grow and get irrigated and fertilized and constructed and developed, but we feel on those rare occasions when we call the attention of the Congress to the preservation of the tremendous value of existing facilities and the necessary expansion of those facilities in the established industrial areas of the country that we come with a worthy cause and a cause that deserves, we think, favorable consideration.

So, we believe this area and the United States needs the deeper channel.

We believe that it should be constructed by the Federal Government, and that it should be deep enough to sustain the necessary traffic.

We know that, even if the St. Lawrence seaway were to be built, it would be a good many years before the Labrador ore can go through any other area than the selected approach, which is to Philadelphia, and that even then a substantial part of it would probably still come to Philadelphia, and certainly during those months of the year when the seaway is closed, presumably all of it which moves by sea would come to Philadelphia by virtue of some agreements which we are advised will make that effective.

So, for these reasons and for those which have been and will be further advanced by my very distinguished friend, Senator Martin, and by Mr. LaBrum, also an old friend, Mr. Schad and the gentlemen from this area, I join with them in urging the approval of the construction of the deeper waterway from Trenton to the sea, such construction not to involve private contributions.

Thank you.

Senator BUSH. Thank you very much, Congressman Scott.

The committee will stand in recess for just a minute.

(Whereupon, at 10:44 a. m., a 2-minute recess was taken.)

Senator BUSH. The committee will please be in order.

Now, the chairman wishes to state that we are going to limit the remaining witnesses, of whom there are a substantial number. There are 8 or 9 more who wish to be heard here. These hearings are going to terminate at 12 o'clock. So, I will ask other witnesses who may come before the committee to limit themselves each to 5 minutes, and any statement which they may have prepared and have with them, we would be very glad to accept and place in the record along with their remarks.

With that understanding, does Mr. Schad wish to speak now?

STATEMENT OF HARRY G. SCHAD, CHAIRMAN OF THE JOINT EXECUTIVE COMMITTEE FOR THE IMPROVEMENT AND DEVELOPMENT OF THE PHILADELPHIA PORT AREA

Mr. SCHAD. Yes, Mr. Chairman. My name is Harry G. Schad. I represent the Joint Executive Committee for the Improvement and Development of the Philadelphia Port Area.

We have a statement that I would like to have permission to file for the record.

Senator BUSH. Is this it, Mr. Schad?

Mr. SCHAD. Yes, sir.

Senator BUSH. Without objection, Mr. Schad's statement will be received and placed in the record at this point.

(The prepared statement submitted by Mr. Schad is as follows:)

PORTS AND PROSPERITY

An analysis prepared by the Joint Executive Committee for the Improvement and Development of the Philadelphia Port Area

The purpose of this analysis is to provide information showing the need for a 40-foot channel in the Delaware River above Philadelphia.

The joint executive committee for the improvement and development of the Philadelphia port area is composed of the following 17 member organizations:

Atlantic Deeper Waterways Association
Board of Harbor Commissioners, Wilmington, Del.
Bureau of Port Operations, City of Philadelphia
Chamber of Commerce of Greater Philadelphia
Commercial Exchange of Philadelphia
Commercial Museum of Philadelphia
Foreign Traders Association of Philadelphia
Lumberman's Exchange of the City of Philadelphia
Northeast Philadelphia Chamber of Commerce
Philadelphia Bourse
Philadelphia Marine Trade Association
Philadelphia Maritime Exchange
Philadelphia Port Bureau
Pilots' Association for the Bay and River Delaware
Port of Philadelphia Maritime Society
South Jersey Port Commission
Vessel Owners' and Captains' Association

PURPOSES AND FUNCTIONS OF COMMITTEE

The purpose of this committee is to combine the port thinking of its member organizations and to project that joint opinion so as to promote concerted action in matters affecting the Delaware River in its relationship to shipping. The committee began functioning in 1888, and during the succeeding 66 years it has promoted every major improvement of the Delaware River involving channels, turning basins, and anchorages. The committee's interest permeates every phase of the integration of waterway and shore installations; it works to a master plan of adequate port development.

A study of the list of member organizations of the joint executive committee shows that a substantial segment of the Delaware River Valley is represented by the committee in port affairs.

The Federal Government, through the Corps of Engineers, United States Army, and the United States Coast Guard, is responsible for the development, maintenance, and safety of the Nation's harbors and waterways. Within the Philadelphia port area the joint executive committee works very closely with these two arms of the Federal administration.

Channel improvement involves work beneath the surface of the water, work that is not visible, and work that is not in the public eye. Only those directly connected with such a project know what has been done and only a few are cognizant of the benefits. As a result, useful harbors and channels are developed and they yield highly significant benefits to the people without ever capturing the public eye. At the present time this committee is focusing public attention upon the need for a deeper channel from Philadelphia to Trenton, N. J.

EXISTING CHANNEL PROJECT

The Delaware River is one of the principal navigable waterways in the United States. From Trenton to the sea the Delaware is a tidal estuary. The length of the Delaware from its source in the mountain regions to the Atlantic Ocean is 404 miles. The 121-mile section below the head of the tides at Trenton is navigable.

Nature provides the waterway, but it is necessary for man to develop the port. It takes commerce to make a port and commerce requires deep water for navigation.

The approximately 38 miles of the river between the Philadelphia Naval Base and Trenton, N. J., has a federally dredged channel which drops progressively from 40 feet, to 37 feet, to 28 feet over a 10-mile stretch, and then to 25 feet over the final 28 miles to Trenton. The channel width follows the same pattern, narrowing down to 300 feet from a maximum of 1,000 feet.

PROPOSED CHANNEL PROJECT

The existing channel was very fine and served well when it was authorized and completed many years ago, but today it is as obsolete and inefficient as the old-time horse and buggy. For this reason interested port men were successful in having Congress authorize the Army engineers to make an investigation of the advisability of increased depths in the Delaware River between Philadelphia, Pa., and Trenton, N. J.

In January of 1953, the Board of Engineers for Rivers and Harbors recommended deepening the Delaware River to a depth of 40 feet between Philadelphia and Newbolt Island (about 6 miles below Trenton) and 35 feet upstream to Trenton, N. J., with varying widths, but generally about 400 feet.

PORTS AND PROSPERITY

There are two vital factors in favor of congressional approval of the 40-foot channel above Philadelphia:

1. The history of economic growth below Philadelphia following the deeper channel project in that area, and
2. The potential benefits to the defense program of the United States.

Below Philadelphia cargo tonnage has increased steadily; the preliminary 1952 figures of Army engineers indicate a volume of 55,331,473 tons. In sharp contrast, however, that portion of the river above Philadelphia had an estimated 6,949,933 tons of cargo, or approximately one-eighth of the volume handled through the deepwater channel below Philadelphia.

Deep water attracts commerce and commerce brings prosperity to the port. The Delaware River Port Authority has made a detailed analysis of the value of waterborne commerce. This analysis reveals that the direct-dollar income to the Philadelphia port area, contributed by port activities for the year 1950, amounted to more than $400 million. This direct dollar income leads to the production of more than twice that amount as direct dollars are spent again and again throughout the area. On this basis, the combined direct and indirect revenue is well in excess of $1 billion annually.

A 40-foot channel above Philadelphia will bring about a substantial increase in the industrial facilities and the prosperity of that area. There is a decreasing amount of space available for industrial expansion in the area below Philadelphia; therefore, a deeper channel above the city will permit expansion in an area which has large amounts of available open waterfront land.

It is amazing how industrial facilities cluster about a deep channel. Below Philadelphia there are 243 wharves. Above Philadelphia there are only 22 wharves and piers. A 40-foot channel to Newbold Island and a 35-foot channel to Trenton will bring concentrated industrial development on both banks of the river.

The cities and towns from Philadelphia to Trenton are already in place, but they are tragically undeveloped in comparison with full potential. Industry locates on strategic waterways with the proper expectation that the Federal Government will maintain and develop the waterways as competitive conditions dictate.

In this connection, it is significant to note that the United States Steel Co. has completed the newest integrated steel plant in the Nation at Morrisville on the upper Delaware, with a 1,800,000-ton capacity. This plant represents an investment of nearly $500 million, and at full operation it provides the income of 6,000 workers and their families. The plant covers nearly 4,000 acres so that there is sufficient space for the expected future increase in capacity.

Steel has long been well established in the Delaware River port area. At Trenton, N. J., there are furnaces with over 200,000 tons of annual steelmaking capacity; the Midvale furnaces in Philadelphia have an annual capacity in excess of 400,000 tons; Claymont, Del., has a mill with nearly 500,000 tons of

ingot capacity; there are furnaces at Conshohocken, Pa., with an annual capacity in excess of 500,000 tons. The National Steel Co. has recently purchased acreage in the area of Paulsboro, N. J., for the erection of steelmaking facilities.

The manufacture of a ton of steel requires approximately 4 tons of raw materials. It is, therefore, advantageous for a steel mill to be located on a navigable fresh water stream where raw materials can be brought in and the finished steel shipped out by low-cost water transportation. This is well illustrated by the heavy concentration of steel mills along the shores of the Great Lakes and along the rivers in the Pittsburgh area.

To conserve this country's dwindling supply of iron ore, the steel industry has been looking to additional sources of high-grade ores for importation. Iron ore is available in Sweden, Cuba, Morocco, Liberia, Brazil, Venezuela, Newfoundland, Labrador, and Quebec, but the most suitable sources, considering the size of the deposits, the iron content, and other factors, seem to be Venezuela and Labrador-Quebec. Both of these sources are logical and economical for a mill located within the Delaware River port, and this changing raw material situation, combined with the proximity of markets, will provide further stimulus to steel expansion in this area.

According to the American Iron and Steel Institute, the steel capacity of the United States is 124,300,000 tons of ingot and steel for castings annually. Pennsylvania and New Jersey capacity totals 34,280,260 tons which is nearly 28 percent of the United States total. An increasing percentage of import ore to supply this Pennsylvania-New Jersey total will move through the Delaware River for shipment to the inland steelmaking centers. The Fairless Works of the United States Steel Co. has handling facilities which are scaled for the transshipment of import ore to its inland plants even beyond the borders of Pennsylvania.

Historically, wherever new steelmaking facilities have been created a great series of related and satellite industries follow, and the boom which United States Steel has created on the upper Delaware is simply a forerunner of what the future will bring if the Federal Government does its part. Ports engender prosperity and the modern port must have deep water.

The petroleum industry is heavily concentrated in the Delaware River port area. This is the largest oil-refining center along the eastern seaboard and the second largest in the United States. There are six main refineries in the area, in addition to numerous other petroleum terminals. Crude oil to feed these refineries, as well as petroleum products, comes in by large vessel and is shipped out by vessel, tank car, pipeline, and transport truck.

The Delaware Valley provides nearly 10 percent of the Nation's crude oil refining capacity. From January 1946, through September 1954, the Philadelphia area's refinery capacity will have shown a growth of more than 70 percent as compared to 57 percent for the United States.

The petroleum industry is one of exceptional growth, and it is very likely that it will expand in that open area above Philadelphia following completion of the 40-foot channel. At the present time several of the major oil companies have important distribution facilities located on the river at Trenton, N. J., but because of the shallow water these installations are served by barge rather than the preferred method of low-cost tanker supply.

At Trenton, N. J., there is an excellent general cargo terminal with modern facilities for unloading and loading oceangoing vessels, but here again the commerce cannot reach its optimum potential until a proper waterway is provided.

The commerce on the Delaware River above Philadelphia, according to the latest available figures of the Army engineers, has averaged 6,709,000 tons per year over the last 5 years reported. When analyzing the additional commerce which would be reasonably assured for the 40-foot channel from Philadelphia to Trenton, Army engineers arrived at a very conservative 14,810,000 ton average additional volume each year over the 50-year economic life of the project. Thus, we see that the 40-foot channel will bring at least three times the present volume of commerce.

The Army engineers estimate that annual round-trip vessel movements required for supplying the United States Steel Co. would include 255 trips of ore vessels and 76 trips of ore vessels carrying coal and drawing 35 feet in salt water, plus 22 trips of petroleum carriers drawing 30 feet in salt water. Other movements that are reasonably assured include 46 trips annually of tank vessels with drafts of 30 feet in salt water delivering petroleum products and 95 trips of deep draft (up to 30 feet) freighters carrying lumber, iron and steel products, chemicals, and miscellaneous manufactured commodities.

This comprises a total of 494 round-trips of deepdraft vessels and comes to an average of 2.7 deepdraft vessels per day, in and out. This is heavy traffic. It is traffic which the modern vessel can bring to the upper Delaware region if deep water is provided.

VESSEL TRENDS AND CHANNEL REQUIREMENTS

There has been a distinct trend toward larger and faster vessels. American industry is building larger and larger vessels in an effort to lower transportation costs and maintain some degree of competition with foreign vessels. Deeper channels are required to accommodate these new larger type vessels. The American merchant marine cannot progress without improved harbors and channels.

During the Second World War about 70 percent of the oil tankers were of the T–2 type with a draft of 30 feet and with 16,360 deadweight tons (carrying capacity). Ore carriers generally were of 23,000 deadweight tons with a draft of approximately 34 feet. Since 1945, rapidly increasing operating costs, increased demands, and the replacement of war-damaged or obsolescent vessels have brought about the construction of the present super cargo carrier. Today tankers building, or planned, range in tonnage from 22,000 to 46,000 and the greater majority of them draw 31 to nearly 38 feet of water. Ore carriers presently afloat and in the process of being built are rapidly replacing the war-built Victory, Liberty, C–2, and C–3 vessels. These new ore carriers have a deadweight capacity of 40,000 tons and draw 35 feet of water. Even larger ore carriers are being built for operation in the Delaware River—60,000 tons deadweight with a draft of 38 feet.

This trend toward supercargo carriers is not singular to the ore and oil industries. The Mariner-type dry-cargo vessel has been adopted as the desirable United States flag cargo vessel. The Mariner-type has a loaded draft of 32 feet.

These newer vessels are extremely large, not only with regard to their draft and carrying capacity, but they range in length from 563 feet to better than 800 feet and their widths range from 76 feet to 116 feet.

These large supercargo vessels will carry the bulk of the commerce in the Delaware River above Philadelphia. They will come into the Delaware River in ever-increasing numbers and to a far greater extent than to any other United States port.

This pattern of larger, more efficient supercargo vessels demands very definite channel and anchorage requirements in the interest of navigation safety and commercial well-being.

Actually, 40 feet is a bare minimum when we consider the common drafts of modern oceangoing vessels. A loaded vessel drawing 30 feet of water is below average in today's experience, yet the following quotations from a 1938 report of the Army engineers point up the need for a 40-foot channel for a vessel drawing 30 feet while at rest in salt water:

"There is an apparent unanimity of opinion among ship captains and pilots that the * * * channel in Delaware River * * * is inadequate for vessels loaded to 30 feet or more at the pier. Certain factors singly, or in combination, tend to reduce the depth available below the keels of vessels when under way in this channel. Among these are the 'squat' (increase of draft when in motion), the loss of buoyancy experienced in moving from salt to fresh water and the effect of abnormally low tides.

"* * * Instrumental observations made on vessels navigating the present channel at normal speeds and on regular schedules indicate increased drafts due to squat as much as 3.5 feet.

"Loss of buoyancy in moving from salt to fresh water results in about 3 percent increase in draft, or about 1-foot increase for the vessels having a draft of 30 feet. Abnormally, low tides * * * require an additional allowance of 4 feet for decrease below project depth. There is required under the keel for safe navigation not less than 2 feet. These factors, together with the maximum allowance for squat, indicate that a channel depth of 40 feet in Delaware River is required for safe navigation for a ship drawing 30 feet at rest in salt water.

"Insufficient channel depths cause difficulty in steering, especially with the longer hulls, and further cause excessive vibration which is injurious to vessels."

If this depth is needed for the vessel with a 30-foot draft, the difficulties and loss of efficiency experienced by the larger vessels which do try to navigate the upper Delaware River can readily be appreciated. As things now stand,

shipowners find that it is neither safe nor practical economically to send deep-draft vessels into the upper Delaware. The region has suffered because of the lack of a modern deep waterway, and this loss of trade will continue in even greater proportions because of the increased requirements of the modern type vessel.

The National Federation of American Shipping recently completed a survey which shows that about 96 percent of privately owned American oceangoing vessels would be unable to use a 25-foot waterway. And yet a 25-foot waterway is what we have to work with along the upper Delaware River.

DOLLAR CONSIDERATIONS

The upper Delaware is in the process of development, and its ultimate size and subsequent requirements cannot be forecast with exact determination. For this reason the Army engineers, in evaluating the dollar benefits from the deeper channel, did not take into account the establishment of new industries. The following quotes show that the Army engineers were properly conservative in their methods employed to measure the dollar benefits accruing to the deeper channel:

"The benefits anticipated as creditable to the deeper channels that were considered between Philadelphia and Trenton consist of the incremental transportation savings generally obtained by comparing vessel movements over the existing 25-foot channel with vessel movements over the proposed deeper channel.

"* * * * the benefits * * * are measured in terms of the costs of vessel operation, and these include interest on investment, depreciation, wages, subsistence, stores and supplies, fuel, repairs, insurance and taxes * * *.

"In estimating the benefits that would be secured by the channel improvements evaluated, consideration has been given to the natures, volumes, sources, and destinations of the various commodities that constitute the commerce that is potential for this waterway, also the several competitive means of transportation applicable to these movements * * *

The Army engineers conclude that the benefits which would accrue, because of a 40-foot channel, throughout the 50-year life of the project (1958–2007), when reduced to their worth in 1958, on a 2½-percent interest basis, would have an annual value over the 50-year period of $8,450,000 and the benefit-cost ratio is 1.93.

It is clear, therefore, that the 40-foot project is economically justified and that it will be of great benefit not only to Pennsylvania, New Jersey, and Delaware but to the entire country. However, the Chief of Engineers has stated that although he believes a 40-foot channel to be the most suitable development of the waterway and that it would contribute to the general welfare of the region, he also believes that the use of depths greater than 35 feet will be confined to a single company. He further believes that the cost of the incremental depth from 35 to 40 feet should be shared equally by the Federal Government and local interests.

The joint executive committee frowns upon such a proposal of private contributions toward the accomplishment of a public project. By statute and by long prevailing precedent the Federal Government has carried the responsibility for the improvement and maintenance of the Nation's waterways. We believe that a commingling of private and public funds in such an instance can be a forerunner of future malpractice.

The joint executive committee feels that the final 5 feet of depth in the proposed 40-foot channel carries the most favorable monetary return. The following table, which contains selected Army engineers' figures, illustrates our contention:

	Average annual cost (including maintenance)	Average annual benefit	Benefit-cost ratio
40-foot channel	$4,370,000	$8,450,000	1.93
35-foot channel	2,807,000	4,888,000	1.74

Therefore a 40-foot channel costs $1,563,00 more but it returns $3,562,000 more, yielding a benefit-cost ratio of 2.28 for the final 5 feet.

Thus, it is apparent that elimination of the final 5 feet of the proposed channel also eliminates the most profitable segment and, at the same time, increases navigational hazards for the modern supercargo vessel.

Channel development, wholly unsuited for private capital, is a prerogative of the Federal Government. Harbors and channels are vital to industry and defense, and they are indispensable both in peace and in war. An improved, modern waterway is a vital link in the Nation's transportation system, and expenditures for harbor and channel development and maintenance are sound investments. The benefits of waterway improvements are felt not only in States bordering on waterways, but also the inland States which reach the ports by overland transportation.

By analyzing the customs receipts (1900–53) and the Federal Government costs (1836–1953) for the construction and maintenance of the Delaware River from Trenton to the sea, we find that the Federal Government has collected approximately $14 for every $1 which was spent on the waterway. In addition to the customs receipts brought about because of the waterway, the Government has collected many billions of dollars in corporate income taxes. It is interesting to note that Internal Revenue collections of all kinds in Pennsylvania and New Jersey, for the fiscal year ended June 30, 1953, amounted to $7,176,020,506, which is better than 10 percent of the United States total.

RECOMMENDATIONS

In recognition of the facts which have been recited, the joint executive committee for the improvement and development of the Philadelphia port area urges prompt Federal authorization of the proposed 40-foot channel project from the Philadelphia Naval Base to Newbold Island, and a 35-foot channel beyond to Trenton. Further, the joint executive committee urges that the necessary funds be appropriated to commence this important development promptly because it is estimated that approximately 4 years will be required to complete the project.

The joint executive committee stands for economy in Government, but not for the kind of economy which would neglect needed waterway facilities. We believe that this country is still growing and that a large measure of its growth and prosperity depends upon timely and adequate improvement of its channels and ports.

Mr. SCHAD. Mr. Chairman, I would like to talk on two points briefly in the time allowed me. The first is to point out to the committee as far back as 1938 the Corps of Engineers, in connection with a study of the lower Delaware River Channel, pointed out that for a ship drawing 30 feet a channel depth of 40 feet is necessary.

Without going into detail, I think the committee can accept that as a statement of expert opinion by the Corps of Engineers.

I, therefore, express to the committee that, with most of our Liberties, our C-2s, our C-3s, being the ordinary wartime built boats, having a draft of 33 feet, for ordinary commerce we need a 40-foot channel from Philadelphia to Morrisville and Trenton.

My next point is in connection with the local contribution claims of the Corps of Engineers.

I think we can refute them very properly by pointing out that channels and harbors have always been and still are the responsibility of the Federal Government.

There have been some local contributions cited as precedents in the past, but we have been unable to find any features of those local contributions which would be applicable to this proposed development.

We think these other precedents have been surrounded with some peculiar circumstances which have made them acceptable in those other cases.

Now, it has been said here previously the channel improvement is important to the national defense, and certainly the national defense is the job of the Federal Government.

Again, I can't understand how the economic benefits that are certain to follow the deepening of this channel could in any way be recouped by the local-interest contribution.

To us, the Federal Government is the only party that can recoup the cost of a channel improvement of this kind, and they do it through our taxation system, so that properly they should bear the entire cost of this channel improvement and it will flow back to them through the economic benefits that will come about through that improvement and through our system of taxation, which will return those funds to the Federal Government.

Mr. Chairman, that very briefly covers the points I had in mind, sir.

Senator BUSH. Thank you very much, Mr. Schad.

Is Mr. Crothers of the Deleware River Port Authority here?

Mr. CROTHERS. Yes, sir.

Senator BUSH. Mr. Crothers, would you come forward, please?

STATEMENT OF J. ALEX CROTHERS, DIRECTOR, PORT DEVELOPMENT DEPARTMENT, DELAWARE RIVER PORT AUTHORITY

Mr. CROTHERS. Mr. Chairman, if I may, I would like to uncover our map.

Senator BUSH. Yes.

Would somebody please assist the gentleman?

Mr. CROTHERS. This is no reflection on Colonel Milne's map.

Senator BUSH. No. His map served a very useful purpose.

Mr. CROTHERS. But there are some features on our map that I would like to discuss.

Senator BUSH. Do you wish to have your complete statement filed in the record, Mr. Crothers?

Mr. CROTHERS. Yes, sir.

Senator BUSH. Without objection, it is so ordered.

(The prepared statement submitted by Mr. Crothers is as follows:)

STATEMENT BY J. ALEX CROTHERS, DIRECTOR, PORT DEVELOPMENT DEPARTMENT, DELAWARE RIVER PORT AUTHORITY

My name is J. Alex Crothers. I am director of the port development department of the Delaware River Port Authority.

The Delaware River Port Authority is a self-sustaining public corporate instrumentality of the Commonwealth of Pennsylvania and the State of New Jersey, created by a compact between the two States, with the consent of Congress, as the successor of the Delaware River Joint Commission. (Public Resolution No. 26, 72d Cong., S. J. Res. 41).

The port district over which the authority has jurisdiction includes the counties of Delaware and Philadelphia in Pennsylvania and the counties of Atlantic, Burlington, Camden, Cape May, Cumberland, Gloucester, Ocean and Salem in New Jersey.

The purposes of the authority include the development and improvement of the port district: the promotion of the Delaware River as a highway of commerce; cooperation with all other bodies interested in, or affected by the promotion, development or use of the Delaware River and the port district.

The port authority strongly endorses and urges favorable action by Congress on the proposed deepening of the channel in the Delaware River from the Philadelphia Naval Base to Allegheny Avenue, Philadelphia, and from Allegheny Avenue, Philadelphia, to Trenton, N. J., as recommended by the Board of Engineers for Rivers and Harbors.

The port authority is opposed to the proposal of the Chief of Engineers, that local interests be required to contribute in cash to the United States one-half of the actual additional cost of the construction of the proposed 40-foot channel

in excess of the cost of a 35-foot channel. The following resolution was adopted by the authority at a meeting held on December 15, 1953:

"Whereas the Delaware River Port Authority is empowered by the Legislatures of the State of New Jersey and the Commonwealth of Pennsylvania to promote the Delaware River within the port district as a highway of commerce; and

"Whereas the deepening of the river channel to 40 feet from the Philadelphia Naval Base to the upper end of Newbold Island has been held to be economically justified by business; industrial, maritime and municipal interests of the port district and in successive public reports of the Board of Engineers for Rivers and Harbors, Corps of Engineers, Department of the Army; and

"Whereas this area lies in the heart of the rapidly expanding industry and commerce of the Delaware Valley, which in the foreseeable future will require service of oceangoing vessels of a draft in excess of 35 feet; and

"Whereas private industrial, commercial and maritime interests have made and are making large investments aggregating many hundreds of millions of dollars to promote the economic health of the port district; thereby enhancing the national wealth and contributing vitally to the national security; Therefore, be it

"*Resolved*, That, the Delaware River Port Authority record its objection to the proposal of the Chief of Engineers, Corps of Engineers, Department of the Army, that local interests be required to contribute in cash to the United States one-half of the actual additional cost of construction of the recommended improvement of the 40-foot channel in excess of the cost of a 35-foot channel; and be it further "*Resolved*, that, properly attested copies of the resolution be forwarded to interested parties."

The rapid growth of industry, and the marked increase in waterborne commerce and vessel movements during recent years in that section of the port district south of Allegheny Avenue, Philadelphia, which is served by the 40-foot and 37-foot channel projects is clearly indicative of the growth and development that will occur in the upper river between Philadelphia and Trenton when a deeper channel to accommodate the urgent needs of commerce and industry is provided.

From 1946 to 1952 waterborne commerce on the Delaware River increased from 50,906,086 short tons to 70,798,619 short tons, an increase of 39.1 percent. Foreign commerce increased from 16,914,613 to 25,768,708 tons, an increase of 52.3 percent. The increase in imports, consisting chiefly of raw materials for industry carried in bulk by deep draft vessels, is even more striking, for imports increased from 8,965,970 tons in 1946 to 22,204,122 tons in 1952, an increase of 147.6 percent. Figures for the first 6 months of 1953 indicate that foreign commerce on the Delaware River registered another increase in tonnage. In 1948, 10.2 percent of the Nation's foreign commerce was handled by Delaware River ports. By 1953 this percentage had risen to 12.5 percent and is still growing.

Vessel arrivals and clearances totaled 18,200 in 1953, an increase of 55 percent since 1946.

The Delaware River area is presently undergoing an industrial expansion of great magnitude; so great, in fact, that even the most optimistic forecasts are of necessity being constantly revised upward.

A recent survey of capital expenditures in the Delaware River area during the decade of 1945–55 indicated a total of approximately $3 billion spent or to be spent for industrial expansion. This included only those facilities within 15 miles of either side of the river and only those individual expenditures of $5 million or more.

The tempo of construction and industrial development are also reflected in the sales and expansion figures of the area's utilities. The Public Service Electric & Gas Co., which services the industrial belt of New Jersey, has been spending increasing millions each year for new construction and improvements. During 1954 they plan to spend approximately $80 million in capital improvement, much of it in the upper Delaware River port area.

Quoting from the annual report of this company for 1953: "The operation of the integrated steel plant constructed by the United States Steel Corp. at Morrisville, Pa., across the Delaware River from Trenton, N. J., has accelerated development of the area served by the company between Trenton and Camden. It (this area) is known as New Jersey's elbowroom * * * There is great activity in this area. Suppliers to the steel industry are moving in, as are those who use the steep plant's products in fabricating metal goods. The company (Public Service Gas & Electric) is aware of the area's great potential. Situated as it is, in the center of the greatest consumer market on earth, the area will attract

to it many industrialists who wish to manufacture their goods within easy distribution distance of that market." Electric sales of this utility have increased steadily since the end of World War II. Kilowatt-hour sales in 1953 were 7.5 percent greater than in 1952 and 54.8 percent greater than in 1944. The company is engaged in building a new 185,000-kilowatt turbine-generator unit at Burlington, N. J., right in the heart of the upper Delaware River port area, approximately halfway between Trenton and Philadelphia.

The Philadelphia Electric Co., which serves the Pennsylvania side of the river, has also been busy expanding and servicing new customers. This company recently disclosed that it will spend approximately 16 percent more for expansion of its facilities in the 5 years 1954 through 1958 than it did in the past 5 years. During 1953 the Philadelphia Electric Co. spent about $67 million for new plant and facility construction. Expenditures for 1954 are budgeted at $76 million.

The following is quoted from an editorial in the Philadelphia Inquirer of April 2, 1954: "No comparable area in the United States pays more in taxes, more in customs duties, more in other revenue to Uncle Sam than this great region of ours. No area has contributed more to the culture, the history, the wealth and the prosperity of this Nation."

What revenue does this area contribute to the Federal Government? The State of New Jersey and the Commonwealth of Pennsylvania provide over 10 percent of the total United States internal revenue receipts, having contributed $7,184,236,934 of total United States revenue collections of $69,686,535,389 in the fiscal year ended June 30, 1953. The Camden, N. J., and Philadelphia, Pa., collection office received $2,986,588,865 in income and excise taxes in this same fiscal year. These 2 offices handle the returns from 23 Pennsylvania counties and 10 New Jersey counties. A conservative estimate (based on factors of population, median income, value added by manufacture, and retail sales) indicates that the amount contributed by the 5 counties in the upper Delaware River port area is over $1.4 billion.

To this total we might add the customs receipts of the Philadelphia district for the year 1953, which totaled $43,982,301. Thus, in round figures, this 5 county area furnishes approximately $1½ billion of revenue to the Federal Government each year.

Deepening of the channel will definitely increase tonnages on the Delaware. Additional traffic on the Delaware means added income to the area. A study completed by the Delaware River Port Authority showed that each ton of general cargo handled in the port brought about a direct revenue of $11.33 to the port district. The total direct income to the local area attributable to port activities was computed to be over $400 million in 1950. Direct and generated income brought about by port activities in 1950 was estimated to have been in excess of $1 billion. As tonnage increases, so will the port-generated income increase; and the Federal Government, through taxation, will share heavily in this additional revenue.

The greatest single reason why industry has chosen this area for development is the Delaware River and the splendid rail, highway and water transportation facilities of the area. Industry's raw materials move in large volume and usually in bulk. Economical water transportation requires that bulk cargoes be carried in vessels of deep draft. On January 19 of this year the first shipload of Venezuelan iron ore arrived in the Delaware River, the first of over 2 million tons scheduled to arrive this year. In 1955 it is estimated that 5 million tons will leave Venezuela for the United States, the bulk of it destined for industry on the upper Delaware River.

Newly developed Labrador sources are expected to yield ore for shipment to mills as early as September of this year. It is estimated that 5 million to 6 million tons of Labrador ore will be available for shipment in 1955 and 10 million tons in 1956. The Pennsylvania Railroad has just completed their new Philadelphia ore pier at Greenwich Point located on the proposed 40-foot channel project, north of the Philadelphia Navy Base. This pier, which has just been opened for operation, is the most modern ore unloading facility in the world. Its 850-foot pier will accommodate two of the largest ore vessels simultaneously. The two unloading machines have a capacity of 3,600 tons per hour. This facility involved an investment of approximately $10 million and is expected to handle a large proportion of the import iron coming into the Delaware River, destined to inland steel mills.

In addition to this splendid new ore pier, other modern ore handling facilities are available for the unloading of iron ore and other imported ores at the Port

Richmond Terminals of the Reading Co., immediately adjacent to Allegheny Avenue, Philadelphia, and the Pennsylvania Railroad Co.'s facilities at Girard Point.

The oil refining industry in the Delaware River area is also expending millions for expansion. Over half of the Nation's imports of crude petroleum come into Delaware River ports, reaching an all-time high of 17,800,185 tons in 1952. And 1953 will set another record for statistics for the first 6 months of 1953 show 9,759,349 tons of imported crude petroleum, indicating that the total for 1953 may well be over 19 million tons.

The recent location of steel and allied industry on the Delaware River and the general industrial expansion now under way, coupled with the increasing dependence of industry on foreign sources of raw materials, indicate that the waterborne commerce of the Delaware River will continue its upward trend for some time to come, provided adequate channel depths to accommodate modern bulk cargo carriers and merchant vessels with loaded drafts up to 36 feet are provided.

The plant of the United States Steel Corp. at Morrisville, N. J., is, of course, the principal industry in the upper Delaware River presently in urgent need of a 40-foot channel to accommodate fully loaded vessels of deep draft carrying high grade iron ore from Venezuela and other foreign sources. The location of this plant on the Delaware River, central to one of the largest steel-consuming areas in the country will provide a readily available source of supply of steel for both national defense and civilian uses at the lowest transportation costs. The direct receipt by vessel of high-grade iron ore from foreign sources by this plant will mean the conservation of domestic ores so vital to our national defense and future welfare.

The city of Trenton has a very important interest in the proposed channel improvement. In 1932 the Trenton Marine Terminal was built by the city of Trenton at a cost of approximately $1 million as a public terminal open to public use. This marine terminal was opened for operation in anticipation of the present authorized 25-foot channel project and handled light draft ocean-going vessels for a few years prior to World War II, when the channel was permitted to shoal up. With the present rapid industrial expansion and development in the Trenton area there is ample justification for the restoration of this channel to a depth of at least 35 feet in order to accommodate merchant vessels. The port of Trenton should be afforded the opportunity of sharing in the rapidly growing waterborne commerce of the Delaware River area.

At this time I would like to point out some salient facts which will place this entire project in the proper prospective. Frequent reference has been made, when talking about this project, to the "Upper Delaware," leaving the inference at least that this involves an area in the main, separate and apart from the city of Philadelphia. Nothing could be further from the truth. The total project from the Philadelphia Navy Yard to Trenton Marine Terminal involves a total of 37.5 miles of which 32 miles would have a depth of 40 feet and the balance of 5.5 miles a depth of 35 feet. Of this total, 17 miles lies within the corporate limits of the city of Philadelphia, which is 53 percent of the 40-foot channel project and 45 percent of the entire project. This places not only a major portion of the Philadelphia waterfront, but also the important terminal areas of Gloucester and Camden, N. J., within this project. Additionally, this project would serve the growing industrial cities of Burlington and Trenton, N. J., and Bristol and Morrisville, Pa.

Following public hearings, and after intensive surveys and investigations, the district engineer, division engineer, and the board of engineers for Rivers and Harbors of the Corps of Engineers have all recommended the proposed improvements as fully justified in the public interest without the provision for a cash contribution by local interests. The following is quoted from the recommendations of the Board of Engineers for Rivers and Harbors: "The Board concurs in general with the reporting officers. It believes that the proposed improvements are necessary to the continued and unimpeded growth and development of the industrial area of the Delaware River Basin above Philadelphia, with consequent benefits to the national economy and national defense."

We subscribe to this statement and further wish to direct your attention to the fact that this channel improvement will serve and greatly benefit the port of Philadelphia, Camden, and Gloucester as well as the upper Delaware River area above Philadelphia.

Your committee is respectfully requested to give prompt favorable consideration to this project as fully warranted in the public and national interest.

Mr. CROTHERS. Thank you.

Senator BUSH. Will you proceed, then?

Mr. CROTHERS. My name is J. Alex Crothers, and I am director of the port development department of the Delaware River Port Authority.

The Delaware River Port Authority is a self-sustaining public corporate instrumentality of the Commonwealth of Pennsylvania and the State of New Jersey, created by a compact between the two States, with the consent of Congress, as the successor of the Delaware River Joint Commission.

One of our principal duties is that charged with the promotion and development of commerce in the Delaware River area.

Senator BUSH. How are you financed?

Mr. CROTHERS. We are self-sustaining, financed by tolls from our operations, which consist at the present time of one bridge, the Philadelphia-Camden bridge, sir, and we are now constructing another bridge in South Philadelphia.

The port authority strongly endorses this project.

The authority, however, has gone on record, and I have, and I have included here in my statement a resolution which was adopted by the commission, objecting to that part of the Chief Engineers' report which deals with the cash contribution.

I think it might be interesting to point out to you, sir, from 1946 to 1952 waterborne commerce on the Delaware River increased from 50,906,086 tons to 70,798,000 short tons, or an increase of 39.1 percent.

Foreign commerce increased from 16,914,613 to 25,768,708 tons, an increase of 52.3 percent.

Senator BUSH. That is in and out?

Mr. CROTHERS. Yes, sir.

The increase in imports, consisting chiefly of raw materials for industry carried in bulk by deep-draft vessels, is even more striking, for imports increased from 8,965,970 tons in 1946 to 22,204,122 tons in 1952, an increase of 147.6 percent.

Figures for the first 6 months of 1953, the latest available, indicate that foreign commerce on the Delaware River registered another increase in tonnage.

In 1948, 10.2 percent of the Nation's foreign commerce was handled by Delaware River ports. By 1953 this percentage had risen to 12.5 percent, and is still growing.

Vessel arrivals and clearances totaled 18,200 in 1953, an increase of 55 percent since 1946.

I think those figures point out very definitely the trend upwards and the increase in traffic in the Delaware River which fully warrant attention being given to this project.

I think it might be of interest here to note, since reference has been made to what has been done in the expansion of industry in the area, that one of our public utilities, the Philadelphia Electric Co., which serves the Pennsylvania side of the river, spent last year a total of $67 million for new plant and facility construction. Expenditures for 1954 are budgeted at $76 million, which will give you some idea of the tremendous expansion, and these expenditures are to take care of the growth of industry and the population in this particular area about which we are talking.

With regard to this question of the cash contribution, and the statement has been made this area contributes a substantial amount to the Federal Government, you may be interested to note that the State of New Jersey and the Commonwealth of Pennsylvania provided over 10 percent of the total United States revenue receipts, having contributed $7,184,236,000 of the total collections for the fiscal year June 30, 1953.

The Camden, N. J., and Philadelphia, Pa., collection offices received $2,986,588,865 in income and excise taxes in this same fiscal year. These two offices handle the returns from 23 Pennsylvania counties and 10 New Jersey counties.

A conservative estimate, based on all factors, indicate that the amount contributed by the five counties in the upper Delaware River port area, which will be served by and border on this proposed waterway, is over $1.4 billion.

To this total, we might add the customs receipts of the Philadelphia district for the year 1953, which totaled $43,982,301.

Thus, in round figures, this five-county area furnishes approximately $1½ billion of revenue to the Federal Government each year.

Deepening of the channel will definitely increase tonnage on the Delaware. Additional traffic on the Delaware means added income to the area.

A study recently completed by the Delaware River Port Authority, as to the value of each ton of cargo to the area's economy, indicates that the total direct revenue for the local area attributed to port activities was computed to be over $400 million in 1950.

Senator BUSH. One minute.

Mr. CROTHERS. Yes, sir.

Reference has been made here to the fact that this channel serves the upper Delaware River. I would like to point out some salient facts which place this entire project in the proper perspective.

Frequent reference has been made, when talking about this project, to the upper Delaware, leaving the inference at least that this involves an area in the main separate and apart from the city of Philadelphia. Nothing could be further from the truth.

The total project from the Philadelphia Navy Yard to Trenton Marine Terminal involves a total of 37.5 miles, of which 32 miles would have a depth of 40 feet and the balance a depth of 35 feet. Of this total, 17 miles lie within the corporate limits of the city of Philadelphia.

This area right here, sir, from the Navy Yard to this point, the proposed 40-foot channel, lies within the corporate limits of the city of Philadelphia and serves the principal Philadelphia port area, including the ports of Camden and Gloucester. The new ore facility of the Pennsylvania Railroad just completed at a cost of $10 million, the ore-handling facilities of the Reading Railroad at Port Richmond, and will also serve, of course, the cities of Burlington, Bristol, and Trenton.

We urge your favorable consideration, without a cash contribution.

Senator BUSH. Thank you very much, Mr. Crothers.

Mr. Ed Keely, president of the Atlantic Deeper Waterways Association.

Mr. Keely, would you come forward?

Have you a prepared statement, Mr. Keely?

STATEMENT OF ED KEELY, PRESIDENT, ATLANTIC DEEPER WATERWAYS ASSOCIATION

Mr. KEELY. I have a resolution, Mr. Chairman, which I am going to read, with your permission.

Senator BUSH. Thank you.

Without objection, the gentleman's resolution will be received and incorporated in the record at this point.

(The resolution referred to is as follows:)

RESOLUTION

(Adopted at a meeting of the Board of Directors of the Atlantic Deeper Waterways Association, held in Philadelphia, Pa., April 27, 1954)

Whereas the Atlantic Deeper Waterways Association has for many years been a consistent advocate of the development and improvement of our navigable waterways and ports on the Atlantic coast in order to fully accommodate the growing needs of commerce; and

Whereas the Board of Engineers for Rivers and Harbors, after careful consideration of the reports from the district and division engineers, recommends that the existing project, Delaware River from the Philadelphia Naval Base to Trenton, N. J., be modified to provide for the deepening of the channel to a depth of 42 feet in rock and 40 feet in other material, and a width of 400 feet in the straight reaches with suitable widening at bends to the upper end of Newbold Island, a distance of approximately 32 miles, and for deepening the channel from the upper end of Newbold Island to the Trenton Marine Terminal, a distance of 5.5 miles, to 35 feet, and widening the turning basin to 800 feet, with other improvements, at an estimated total cost to the United States of $91,389,000 for construction; and $759,600 annually for maintenance; and

Whereas this project has been held to be economically justified in the public interest by the Board of Engineers for Rivers and Harbors, and is endorsed by the Governors of the States of Pennsylvania, New Jersey, and Delaware, and by municipal, maritime, and other commercial interests in the Delaware River port area; and

Whereas State, municipal, private, industrial, and other commercial interests have made and are making large investments aggregating in excess of $3 billion to promote the economic health of the Delaware River area, thereby enhancing the national wealth, substantially increasing the taxable income of the Federal Government, and contributing vitally to the national security; therefore, be it

Resolved that, the Atlantic Deeper Waterways Association record its approval of the proposed project and urge prompt favorable action by the United States Congress on this vitally important waterway improvement project; and be it further

Resolved that, the Atlantic Deeper Waterways Association strongly oppose the recommendation of the Chief of Engineers, Department of the Army, that local interests be required to contribute in cash to the United States one-half of the actual additional cost of construction of the recommended improvement of the 40-foot channel, in excess of the cost of a 35-foot channel, at an estimated total cost of $36 million or an estimated cash contribution of $18 million; and be it

Further resolved that copies of this resolution be forwarded to interested parties.

Mr. KEELY. I should like to read the latter part of the resolution, which is very short.

Senator BUSH. Will you proceed, sir?

Mr. KEELY. I will have a little time left over.

Senator BUSH. Good. We can use it.

Mr. KEELY. I will just read the latter part of this resolution:

Be it resolved, That the Atlantic Deeper Waterways Association record its approval of the proposed project and urge prompt favorable action by the United States Congress of this vitally important waterway improvement project; and be it

Resolved, That the Atlantic Deeper Waterways Association strongly oppose the recommendation of the Chief of Engineers, Department of the Army, that local interests be required to contribute in cash to the United States one-half of the actual additional cost of construction of the recommended improvement of the 40-foot channel, in excess of the cost of a 35-foot channel, at an estimated total cost of $36 million or an estimated cash contribution of $18 million.

The Atlantic Deeper Waterways Association, as you probably know, was founded by J. Hampton Moore many years ago. They were responsible for the 20 and later 25-foot channel to Trenton some 25 years ago. That Association has always been opposed to any contributions of this sort from local interests. They have always felt that that was the duty and prerogative and the Government took authority over those streams and local interests should not be asked to contribute.

I thank you, sir.

Senator BUSH. You, of course, endorse the bill and the purposes of the bill for the deepening of the waterway?

Mr. KEELY. Yes, sir. We endorse the bill for the deepening of the waterway very heartily.

Senator BUSH. Yes.

Mr. KEELY. But we object to the contributory feature.

Senator BUSH. Thank you very much, sir.

Is Colonel LaBrum here?

Mr. LABRUM. Yes, sir.

Senator BUSH. Colonel LaBrum, you are representing the Greater Philadelphia-Delaware-South Jersey Council and the chamber of commerce?

Mr. LABRUM. That is correct.

Senator BUSH. What is your official title?

STATEMENT OF J. HARRY LaBRUM, CHAIRMAN OF THE BOARD OF DIRECTORS OF THE CHAMBER OF COMMERCE OF GREATER PHILADELPHIA AND HONORARY CHAIRMAN OF THE BOARD OF GOVERNORS OF THE GREATER PHILADELPHIA-DELAWARE-SOUTH JERSEY COUNCIL

Mr. LABRUM. I am the chairman of the board of directors of the Chamber of Commerce of Greater Philadelphia and honorary chairman of the board of governors of the Greater Philadelphia-Delaware-South Jersey Council.

Senator BUSH. We are very glad to have you with us, Colonel.

Mr. LABRUM. I have a prepared statement, which I will not bother to read but will leave it with you and ask that it be made a part of the record.

I would also like to have made a part of the record a telegram from Mr. Walter M. Phillips, director of commerce of the city of Philadelphia, and I won't bother reading that, in which he heartily endorses this project, the deepening of the channel to 40 feet.

Senator BUSH. Without objection, both items will be incorporated in the record at this point.

(The prepared statement and telegram referred to are as follows:)

DEVELOPING THE DELAWARE RIVER PORTS

NEED FOR A DEEP CHANNEL

I am J. Harry LaBrum, chairman of the board of directors of the Chamber of Commerce of Greater Philadelphia and honorary chairman of the board of governors of the Greater Philadelphia-Delaware-South Jersey Council, an affiliate of the chamber dedicated to the sound economic development and orderly growth of the Greater Philadelphia-Delaware-South Jersey area. This area, known as the Greater Philadelphia-Delaware-South Jersey area and as the Delaware Valley, embraces the counties of Bucks, Chester, Delaware, Montgomery, and Philadelphia on the Pennsylvania side of the Delaware; the counties of Burlington, Camden, Gloucester, Mercer, and Salem on the New Jersey side of the River; and New Castle County, the uppermost county in the State of Delaware.

I. *Military importance*

The Delaware River Valley is of strategic importance to the future of American security and national defense. The diversified industrial power of the river basin is a keystone in the Nation's arsenal for much of this industrial capacity is equipped for military production. The Delaware River from Trenton to the sea—which happens to be the range of current major industrial expansion—enjoys a nominal and natural security from interruption of operation in the event of war. Few, if any of the major ports in the United States can make this statement. Such vital facilities as the Philadelphia Naval Base, the Frankford Arsenal, a Quartermasters Depot of the United States Army, various shipyards and numerous other armed services installations are located in the Delaware River Valley. Other important installations are definitely planned, which will further increase the value of the area to the Armed Forces.

In this age of atomic warfare, the Delaware River port area—Wilmington to Trenton—is a natural fortress for the loading of supplies and the embarkation of personnel in the event of a national emergency; and the Delaware breakwater, the reach of the bay and the tidal estuary all are successive baffles, so to speak, against the penetration of enemy sea borne craft. Whether an enemy submarine force were to comprise conventional type fleet submarines, snorkel-equipped submarines, or even nuclear powered submarines, the tidal range of the Delaware offers a higher guaranty of security than any other port in the Nation. Another great advantage is dispersion, a subject to which military authorities attack the greatest importance. The growth of industry along the upper Delaware complies fully with the aims of this defense dispersion program.

The area has recently been further strengthened by the development of a steel ring of guided missile bases (NIKE) surrounding the Greater Philadelphia area, bounded by Trenton on the north and Wilmington on the south. Presently there is a base in Bucks County, one in Gloucester County, and two in Burlington County. The cost of construction of these four units is estimated at upwards of $2 million. Further bases of this type are to be developed in some of the other counties comprising the region.

The defense fortress of the Delaware Valley could be even further strengthened with the construction of deeper draft seagoing craft of every category, with all of the advantages in high speed and economic operation which such design implies, for it is not the lack of the necessary shipbuilding technology, but rather the lack of available draft in our major national ports that prevents the ingress and egress of vessels with drafts of 40 and even 45 feet. Deeper draft vessels are only awaiting appropriate rivers and harbors improvements.

In times of national emergency, adequate port installations must be available. During World War II the port of Philadelphia alone handled 15 percent to 20 percent of all goods shipped in and out of the United States.

II. *Industrial development*

Increased industrial development would provide the key to the expansion of existing industries and the building of new ones in the valley, which would benefit the economy of the entire Nation. Industry in the Delaware Basin, represented by thousands of plants and billions of invested dollars, is dependent largely on economical ocean transportation. Failure to modernize the channel will increase production costs and place an unnecessary burden on our economy. On the other hand, the completion of the project will stimulate industry and create new sources of employment for America's expanding population.

Industrial development has closely mirrored various deepenings of the channel between Philadelphia and the sea. A very substantial industrial development has followed the 40-foot project undertaken in 1939, which gave deep-draft, oceangoing vessels access to the Navy yard and other points on the lower Delaware. New industry moved into the area below Philadelphia, attracted largely by the facilities made available by the deepened channel. Some of the most important oil refineries in the east are located in this area because their deep-draft tankers can bring crude oil directly from the wells to the refinery plant from distant points. Few locations in the Nation have shown as great an increase in industrial productivity, population, income, and taxables as the lower channel river area between Philadelphia and Wilmington.

A. *Accessibility.*—The shores of the Delaware River where channel improvements are now proposed have not been extensively developed through the location of major industries, so that large areas of land on both shores are either vacant or devoted to less productive use. Except for the inability of oceangoing vessels to navigate the river to Trenton, this land is equally attractive for the type of development which exists below Philadelphia. Access by railroads and highways; availability of raw materials in Pennsylvania, New Jersey, Delaware, and neighboring States, and from abroad; and availability of adequate labor force and of ample domestic markets, are equal in extent. The only apparent reason for the relatively low state of industrial development between Philadelphia and Trenton, when compared to that existing below Philadelphia, is the lack of accessibility by deep-draft shipping. This single factor has excluded these shores from consideration by major industries whose raw materials or finished products require transportation in this class of vessel.

The present harbor depth at Philadelphia and Camden is only 37 feet, whereas the other great harbors of the United States are 40 feet or more. The improvement to this harbor, which will benefit Philadelphia and Camden, is included in the proposed project.

III. *World Trade*

American industry and, in fact, American civilization depend on some 70 raw materials imported from abroad. Foreign ores and oil must be imported in order to conserve our resources of raw materials.

The trend in shipping in all lines of endeavor is toward larger and deeper-draft vessels with greater carrying capacity. In fact, the number of modern supertankers in world service in 1947 was 6 and today there are 153 of these ships. A recent survey by the National Federation of American Shipping shows that about 96 percent of the privately owned American oceangoing vessels would be unable to use a 25-foot waterway. The presently authorized upper river channel therefore excludes 9 out of 10 American oceangoing ships.

This trend toward deeper-draft vessels is necessary in order for the United States to meet foreign competition. Other countries cannot only build ships more cheaply than we can, but also operate them more economically.

(*a*) *Increasing tonnage.*—Year by year the foreign and coastwise commerce using the Delaware River ports is increasing. During 1950 these ports handled a total of 68 million tons of cargo. The 1951 volume was placed at 75 million tons.

Receipts at the port of Trenton in 1951, before restoration of the 25-foot channel, were 350,000 tons. However, with a deeper channel it is estimated that a total of 1.8 million tons of material would go through this port. The increase is conservatively based upon the following estimated potential tonnages: 271,000 tons of lumber and forest products; 932,000 tons of petroleum; 342,000 tons of iron and steel products; 318,000 tons of chemicals and raw materials; and 25,000 tons of miscellaneous cargo.

As industry in the area grows and with modern shipping facilities available, the following tonnages have been forecast in a report made by the engineering firm of Knappen-Tippetts-Abbett-McCarthy, for the city of Trenton and Mercer County:

	Million tons
1960	2.5
1967	2.7
1977	3.0

Without adequate shipping facilities and a deeper channel, the potentialities of this area will never become a reality. Industrial concerns are awaiting the

development of the channel before committing themselves to building new plants or expanding old ones in the Delaware River Valley.

IV. *Federal revenues, expenditures, and appropriations*

During the past 50 years the development of the Delaware River has cost the Government $105 million and it has received in return $14.25 for each dollar invested. The United States Army engineers estimate the cost of opening the upper Delaware to deep water at $94 million. In 1951 the port of Philadelphia received $52.3 million in customs receipts or more than $1 million each week. Therefore, the customs revenues from Philadelphia alone will, in less than 2 years, total more than the cost of developing the entire channel. These revenues will continue and increase considerably with a deeper channel. Increased taxes accruing to the Federal Government as a result of the deepening will in a few years pay for the cost of the improvement.

From 1824 to 1948 the Federal Government spent more than $3.4 billion on its rivers and harbors program, including new construction (64 percent) and maintenance (36 percent), divided as follows:—

Seacoast	$1,275,642,000
Great Lakes	363,479,000
Inland-Intracoastal	1,789,991,000
Total	3,429,112,000

Meanwhile, the Government received $1.5 billion in revenue from Delaware River shipping during the period between 1900 and 1950.

It is evident, therefore, that the Delaware River area alone has produced for the Federal Treasury revenue equal to half the total cost of all waterways improvement work ever undertaken by the Federal Government throughout the Nation.

For the fiscal year 1954 the Federal appropriations for the United States Army engineers' civil-works program amount to $421,686,000. However, the 17 Northeastern States, which have 50 percent of the population and pay 60 percent of the taxes in this country, receive less than 3 percent of this amount, or $12,179,000 for construction purposes.

V. *Points of local interest*

(*a*) *Shoreline damage.*—The United States Army engineers have studied this subject and are convinced that any damage to the shoreline or riverfront structures is remote. However, recognizing the possibility of such damage at Bristol and Florence Heights, the corps has as a matter of policy assumed any such damages to be Federal responsibility, and funds for remedial works are included in the Federal costs.

(*b*) *Salinity.*—Elaborate model studies made at the United States Waterways Station in Vicksburg, Miss., have indicated that the deepening of the channel will have no appreciable effect on the salinity, either as to content in the water or to the extent of its intrusion upstream. This opinion has been confirmed by an eminent geologist. In fact, the creation of a deeper and larger freshwater pool below Trenton would tend to further retard the advance of any saltwater intrusion.

(*c*) *Pollution.*—The dredging of the channel will have no adverse effects on the ground-water supply. This point is thoroughly presented in a statement by Dr. Arthur E. Cleaves, one of the Nation's foremost geologists, who made the study of the Delaware River. He states "the effect of the channel changes proposed are believed to be so small in degree that any increased pollution effects are thought to be negligible. In fact, by removing riverbed silts, in which some pollution wastes may have accumulated, the infiltrating waters should show improvement. This, however, is so small a degree as to be academic."

Although heretofore there was a diversity of opinion on the effects on the ground-water supply of deepening the channel in the Delaware, especially in the Camden area, nevertheless a recent impartial consulting firm, after exhaustive studies, reported that there would be no adverse effect on ground-water supplies in that area.

(*d*) *Floods.*—Headwater reservoir storage and channel improvements are two common methods of eliminating floods. Tidal streams are seldom subject to flood damage. However, deepening the channel at Trenton should mitigate any ice jams at this location, thus reducing possible flood hazards in this vicinity. The storage dams now being completed in the headwaters will also have a beneficial effect in retarding flood flows and in providing increased discharges of the

river during droughts. There is no basis in fact for the assumption that filling some of the swamplands will increase flood hazards.

(*e*) *Disposal of spoil.*—The rock, sand, and silt removed by dredging operations will be at a premium as fill material to convert present swamp areas along the river into valuable acreage. As a matter of fact, scores of property owners on both sides of the Delaware have already requested the Army engineers to pump this material to their lands in order to create riverfront property which will be attractive for new housing developments and industrial sites.

(*f*) *Recreational facilities.*—The deeper channel and the resultant river traffic will not be detrimental to the recreational facilities on the river. In recent years boating, fishing, sailing, and swimming below Trenton have been greatly reduced; and since the United States Coast Guard regulates traffic on inland waterways, the speed of all ships using the channel will be limited. Therefore, there will be little or no hazard in boating, sailing, or swimming. In fact, cargo ships will have less adverse effect on boating, sailing, and swimming than a steady stream of barges using the present channel or motorboats traveling at high speed.

VI. *Economic advantages*

(*a*) *Increased world trade.*—The ability to ship abroad at low cost direct from the heart of industrial America will improve the Nation's competitive position in world trade. In this way it will add to the strength of the United States' leadership in world commerce and in world affairs.

(*b*) *Decreased shipping costs.*—The deeper channel will extend the benefits of low-cost ocean transportation to thousands of industries, great and small, and is therefore clearly in the public interest. These industries will become substantial customers of suppliers the country over and distribute throughout the Nation the savings resulting from efficient transportation and advantageous location.

(*c*) *Economic growth.*—Historically, all projects similar to the deepening of the Delaware have, without exception, brought a tremendous economic growth to the area involved. It is difficult to forecast the increase in jobs, community development, and amount of taxes to be paid to the States and Federal Government which will result from the completion of the deeper channel project.

Further development along the shores of the Delaware will mean new capital investments, new job opportunities, new employment, new payrolls. They will produce new housing and new service industries to accommodate the new population. New job opportunities in the building trades have already begun to create an influx of people, tremendous payrolls, and lasting benefits for the area. Within 5 miles of Morrisville, 2 large communities are now under construction—one of 4,000 homes, and one which is projected for 16,000 homes. Six large shopping centers are either on the drawing boards or under construction.

The Delaware River tidal estuary reaches inland for 135 miles to serve one of the world's heaviest concentrations of population, production, and wealth.

(*d*) *Industrial development.*—On its final 135-mile journey from Trenton to the sea, the Delaware flows past more than 8,000 different manufacturing plants, most of which are located along the river where there is deep water. Deep water all the way to Trenton will make available for industry 58 miles of shoreline, thus enriching the entire area.

Two-fifths of the $3 billion industrial development planned for both sides of the river are north of Philadelphia. All of this enormous expansion will be landlocked by a 25-foot channel, which has already proved too narrow and too shallow even for present navigational needs.

Benefits from the deeper channel will accrue not only to the present established industrial plants along the river, but also to inland plants, as well as to those which may move into the territory due to the accessibility of waterborne raw materials and export trade opportunities.

(*e*) *Increased property values.*—Deeper water in the Delaware River is certain to increase property values all along the river. Experience in the lower Delaware has shown the enormous increase in value of property many miles inland from the river, to say nothing of the accompanying increase in revenues for the railroads and other forms of transportation. For this reason, the Delaware River Joint Commission, predecessor of the Delaware River Port Authority, was charged by the State legislatures of New Jersey and Pennsylvania prior to 1947 to formulate a specific program for the promotion of the navigable section of the Delaware from Trenton and Morrisville to the Atlantic Ocean as a highway of commerce.

(*f*) *Increased population.*—Careful study and estimates of possible increases in population due to the industrial development which will follow the deepening of the channel indicate that in this area we may conservatively expect an increase of more than 600,000 people. Estimates of the population in 1960 for the Greater Philadelphia area range as high as an additional 1 million over the 1950 decennial census. Some counties bordering the Delaware, such as Burlington, anticipate an increase of 62 percent by 1960. Other predictions for counties in the area are significantly high.

A circle with a 100-mile radius and Philadelphia at its center embraces less than 1 percent of the Nation's continental area. Within this perimeter lived 21 million people in 1950, which represented 14 percent of the country's population. Extending the radius to 300 miles would include one-third of the total population of the United States.

SUMMARY AND CONCLUSION

I have attempted to point out that the Delaware River Valley, with its diversified but dispersed industry from Trenton to the sea, its vital defense facilities already mentioned, its natural advantages against the penetration of enemy seaborne craft, its location for the loading of supplies and embarkation of personnel, and the recently established NIKE bases make it of strategic importance to the future of American security and national defense. The extension above Philadelphia of the modernization of the 40-foot project undertaken in 1939, which gave deep-draft vessels access to the navy yard and resulted in a substantial increase in new industry, job opportunities, industrial productivity, population, income, and taxables, is the key to further expansion of the Greater Philadelphia-Delaware-south Jersey area, which would not only benefit the thousands of plants with billions of invested dollars and largely dependent on economical ocean transportation, but the economy of the entire Nation as well.

I should like to point out at this time that the only apparent reason I can see for the relatively low state of industrial development between Philadelphia and Trenton, when compared to that existing below Philadelphia, is the inability of oceangoing vessels to navigate the river between these points where large areas of land are either vacant or devoted to less productive use and thereby excluded from consideration by major industries whose waterborne transportation of raw materials and finished products require a 40-foot channel, a depth which other great harbors of the United States presently enjoy.

I have made mention briefly of the trend toward deeper draft vessels, and would like to reiterate that in 1947 there were few super-tankers throughout the Nation in use, compared with 153 today. It is a significantly interesting fact also that 96 percent of privately owned American oceangoing vessels are unable to use a 25-foot waterway. We all know that it is necessary for us to develop these enormous vessels to meet foreign competition.

Year by year the foreign and coastwise commerce, using the Delaware River ports, is increasing (port of Trenton 1951, 350,000 tons; estimated for 1960, 2½ million tons), but without an adequate channel depth the potentialities of the area will not become a reality because industrial concerns must necessarily wait for the development of the channel before committing themselves to building new plants or expanding old ones.

I have further indicated that the deepening of the channel, according to practically unanimous authority, will have no appreciable adverse effect on the content or extent of salinity intrusion or on the pollution of ground water or on recreational facilities.

Regardless of the reality of the St. Lawrence seaway project, it must be carefully noted that this project would not be able to accommodate the deep-draft vessels which we envision plying the waters of the Delaware, thereby adding to the strategic importance of the area. The deepening of the Delaware River channel is more necessary than ever before because of the great challenge presented by the St. Lawrence seaway to this area. We must have the same tools given our competition.

Finally, I would like to say that it is traditional that waterways should be provided by the Federal Government where they are on tidewater, and in all instances they have yielded a profitable return to the Government not only in increased customs receipts, but also in Federal taxes. In the case of the Delaware River, there can be no doubt that with the increased Federal taxes, to say nothing of those that will go to the local municipalities, the amount of money required to deepen the channel will be repaid in a few years. Therefore, the

proposed project is not only economically sound, but is a must from the standpoint of the safety and prosperity of the entire country.

PHILADELPHIA, PA., *May 12, 1954.*

Senator EDWARD MARTIN,
Chairman, Senate Public Works Committee,
United States Senate Building.

Hearing being held Thursday, May 13, 10 a. m., room 412, Senate Office Building. Authorization of a 40-foot Delaware River channel up river from Philadelphia to the Morrisville-Trenton area ranks in importance with the restoration of the 40-foot channel from Philadelphia to the sea. The Department of Commerce of the city of Philadelphia views this project as one of tremendous economic benefit to the city. As a great artery of low cost transportation it will increase industrial productivity of the Delaware Valley, of which this city is the vital center. More important, it will constitute intelligent development of one of this Nation's great natural resources, the Delaware River. There will be a handsome monetary benefit direct to the Federal Government in the form of substantial tax yields resulting from more efficient economic activity. Not to proceed with this $91 million improvement would be false economy, a failure to exercise our country's traditional strength and vigor. Mayor Joseph S. Clark, Jr., and president of city council, James A. Finnegan, have authorized me to place the city government on record as favoring the 40-foot channel above Philadelphia and urging your committee to recommend the authorization to Congress.

WALTER M. PHILLIPS,
Director of Commerce, City of Philadelphia.

Mr. LABRUM. And I would like the privilege of just about 2 minutes' comments, if I may.

Philadelphia is the center of the greatest market in the world. Within a hundred miles of the radius of Philadelphia there reside approximately 25 million people. Within some 200 miles radius of Philadelphia, one-third of the entire population of the United States lives. As a result of that market, the Greater Philadelphia area is now becoming and is, I think, the most rapidly expanding industrial area in the entire world.

The one thing that is retarding its full growth is the fact that the Delaware River has not been deepened long before this to its proper depth. With the deepening of the channel to 40 feet, we anticipate and expect that much greater development will occur.

For instance, we are informed that if, as, and when the channel is deepened we can expect at least two more steel companies to come into the Greater Philadelphia area, one in Burlington County on the New Jersey side, where the land is already under option, and another in Gloucester County, on the Jersey side, where the land has already been purchased.

In addition to that, the satellite companies which usually follow large steel companies and large operations of that sort will also come into the area.

Now, we believe in the Greater Philadelphia area that the cost of deepening this navigable stream should be borne entirely by the United States Government because the Delaware River and commerce on the Delaware River has brought to the Federal Government many times over any cost which it has expended in the maintenance and deepening of that channel.

For example, I call your attention to the fact that since 1824 to 1948 the United States Government spent on all of the harbors in maintenance and deepening in the United States some $3,429 million and they

collected in that same period from commerce on the Delaware River alone $1½ billion in revenue, so that it is evident that the Delaware River area alone has produced for the Federal Treasury, revenue equal to half the total cost of all waterways' improvement work undertaken by the Federal Government throughout the entire Nation.

Now, in order to give you a graphic picture of just what is happening in the Delaware River, I have brought with me a map which I would like to have made a part of the record, and I will supply your committee with sufficient numbers to divide among your members, which demonstrates graphically what is happening to the Delaware River, and this does not take into consideration any development of less than $5 million.

So, it is of vital importance not only to the area, but to the people of the United States generally, from a defense and economic standpoint, that the Delaware River channel be deepened to at least 40 feet all the way to Trenton.

Senator BUSH. Will you supply us with a large number of those so that we could, if necessary, attach them to the committee report for purposes of other members of the Senate?

Mr. LABRUM. I would be very happy to do so.

How many copies would you like to have?

I have about 10 copies with me, but ——

Senator BUSH. If you could let us have, say, 20 copies in the first instance ——

Mr. LABRUM. Surely. I will be very glad to send them to you.

Senator BUSH. We may want more.

Mr. LABRUM. Should I send them to you?

Senator BUSH. Yes, in care of the Public Works Committee.

Mr. LABRUM. We urge, therefore, that not only should the committee report the bill out as it is presently drawn, but that every effort should be made to expedite the authorization and thereafter the appropriations necessary to deepen the channel.

Senator BUSH. Thank you very much, Mr. LaBrum.

The next witness is Mr. Lemuel B. Schofield, Northern Metal Co. Mr. Schofield.

Mr. SCHOFIELD. Yes, sir.

Senator BUSH. Have you a prepared statement?

Mr. SCHOFIELD. I do not, sir.

Senator BUSH. The committee will be glad to hear you for 5 minutes, or any part thereof.

STATEMENT OF LEMUEL B. SCHOFIELD, REPRESENTING NORTHERN METALS CO.

Mr. SCHOFIELD. I think I can do it, Mr. Chairman, in 5 minutes or less.

I am really here in a dual capacity this morning, because I practice law in Philadelphia and represent and am part owner of 1 of our 3 daily newspapers in Philadelphia, the Philadelphia Daily News, and I am also here with my client, Mr. Max Rose, proprietor, principal owner of a corporation known as the Northern Metals Co., which maintains a large extensive marine terminal at Tacony, Philadelphia, which is a little less than a mile north of the Tacony-Palmyra bridge and about 4 miles north of the bridge that was referred to by the Army

Engineers this morning, the Pennsylvania Railroad bridge across the Delaware River at Delair.

Now, as far as the press of Philadelphia is concerned, I needn't tell you they are, of course, unanimous in favor of a 40-foot channel all the way to Trenton or, rather, to Morrisville, with the extension of 35 feet to Trenton. There is no disagreement about that phase so far as the Philadelphia press is concerned, or the leaders of the newspapers in Philadelphia, all of whom are overwhelmingly in favor of and think it is something Philadelphia deserves, ought to have and should have had before in order to make it what it ought to be, not only one of the great ports of America, but of the world.

Now, as far as Mr. Rose of the Northern Metals Co. is concerned, I think it might interest you and your committee to know that we have there a marine terminal entirely built by private funds, Mr. Rose, containing 162 acres, with 15 miles of railroad siding in the terminal, with 2 piers already constructed, which will accommodate 3 large ocean-going vessels, simultaneously loading or unloading, and with the third pier of 2,400 feet in length now under construction and to be completed befor the end of the current year, together with plans for a building to contain 300,000 square feet.

We think it is unique on the Atlantic seacoast, and especially from the point of view that this is what we might call small business as compared to big bussness that has been referred to elsewhere in the testimony.

We don't compare ourselves to United States Steel, but we do think we are a vital part of the port facilities of the city of Philadelphia.

Now, to give you an illustration, the plant and the terminal facilities were used very extensively in the Second World War. I won't attempt to give you those figures, but in 1951, the end of 1951, at the urgent request of the Army, through the port of embarkation in New York and the Army Transportation Corps, the whole plant was turned over to receive and unload, process, and then load into vessels a large number of vehicles that the Army was sending to the European theater and to the Far East.

It is interesting to note that in less than 2 years there was received and processed at that terminal 96,540 vehicles of one kind or another from the Army, ranging all the way from jeeps, trucks, tractors, trailers, tanks, armored cars, ambulances, and buses, 325 ships were loaded. The tonnage was 1,500,000 tons.

We are glad to note and to have received commendation from the Army on that work, but the point is that only a certain type of vessel could be received there and used in that capacity and loaded in that capacity.

It has been already testified here that the channel is 25 feet. Many of these vessels are 30 feet in draft when loaded. A great many of them couldn't be received at all, and others, when loaded, couldn't go out, except at the crest of the high tide.

There was a very distinct limitation of the capacity of work that could be done.

We think without a channel of the proper depth there that our facilities, for example, and likewise all of the facilities of the port of Philadelphia are limited, which has much more serious effect and consequences, of course, in times of emergency or in connection with the national security and national defense.

I thought that might be interesting to you and to the members of the committee as a practical point of view here on how vital the 40-foot channel is to the port of Philadelphia.

Senator BUSH. Thank you very much.

Mr. SCHOFIELD. Thank you, sir.

Senator BUSH. The next witness is Mr. Henry W. Peterson, secretary of the South Jersey Port Commission.

Mr. Peterson.

Mr. PETERSON. Mr. Chairman.

Senator BUSH. Have you a prepared statement?

Mr. PETERSON. I have, sir.

Senator BUSH. Without objection, the gentleman's prepared statement will be received and placed in the record at this point.

(The prepared statement submitted by Mr. Peterson is as follows:)

STATE OF NEW JERSEY,
SOUTH JERSEY PORT COMISSION,
Camden, May 13, 1954.

Re Delaware River between Philadelphia, Pa., and Trenton, N. J.; and Delaware River between Philadelphia, Pa., and the sea.

HON. EDWARD MARTIN,
Chairman, Senate Public Works Committee,
Senate Office Building, Washington, D. C.

DEAR SENATOR MARTIN: The South Jersey Port Commission, whose offices are located at the Camden Marine Terminals, at the foot of Beckett Street in Camden, N. J., is a State agency created and established by the Legislature of New Jersey by virtue of chapter 336, laws of 1926 and subsequent amendents thereto. The Commission exercises the authority and powers of the South Jersey Port District, a public corporation and body politic. Among its defined powers are the survey, development, control, and operation of port facilities in such port district, and the furtherance of commerce and industry in the district. The South Jersey Port District includes the counties of Mercer, Burlington, Camden, Gloucester, Cumberland, Salem, and Cape May; the seven tidewater counties of New Jersey bordering on the Delaware River and bay.

In keeping with the mandate issued by the legislature, the port commission has consistently advocated and supported projects on the Delaware River and its tributary streams which would promote increased commerce as well as industrial growth.

The South Jersey Port Commission owns and operates the Beckett Street terminal, and acts as agent for the city of Camden in the operation of the Spruce Street pier. There is a substantial investment in these two units comprising the Camden marine terminals, which are open to all on equal terms. The commerce passing through the Camden marine terminals has, during the past 23 years, far exceeded the fondest expectations of the original proponents of the project.

The South Jersey Port Commission endorses the recommendations of the division and district engineers, concurred in by the Board of Engineers for Rivers and Harbors and approved by the Chief of Engineers on November 18, 1953, as follows:

(1) That the existing project, Delaware River, Pa., N. J., and Del., Philadelphia to the sea, be modified to provide for deepening the channel from the Philadelphia Naval Base to Allegheny Avenue, Philadelphia, a distance of 8.5 miles, to 42 feet in rock and 40 feet in other material, with a width of 500 feet through Horseshoe Bend and 400 feet through Philadelphia Harbor to Allegheny Avenue, generally in accordance with the plan of the district engineer and with such modifications thereof as in the discretion of the Chief of Engineers may be advisable; at an estimated cost to the United States of $4,490,000 for construction and no increase in the annual cost of maintenance;

(2) That the existing project, Delaware River from Philadelphia, Pa., to Trenton, N. J., be modified to provide for enlarging the existing channel from Allegheny Avenue, Philadelphia, to the Pennsylvania Railroad bridge at Delair, N. J., a distance of 1.5 miles, to a depth of 42 feet in rock and 40 feet in other material and a width of 400 feet, including relocation of the channel at the

railroad bridge and suitable reconstruction of the bridge; for enlarging the existing channel from the railroad bridge at Delair to the upstream end of Newbold Island, a distance of 22 miles, to a depth of 42 feet in rock and 40 feet in other material and a width of 400 feet in the straight reaches with suitable widening at bends; for deepening the existing channel from the upstream end of Newbold Island to the Trenton marine terminal, including the turning basin, a distance of 5.5 miles, to 35 feet and widening the turning basin to 800 feet; for constructing such bank-protection works as may be necessary; and for eliminating the authorized anchorage near the mouth of Biles Creek, Pa.; generally in accordance with the plan of the district engineer as modified herein and with such other modifications thereof as in the discretion of the Chief of Engineers may be advisable; at an estimated cost to the United States of $86,899,000 for construction and $759,600 annually for maintenance in addition to that now required; provided that local interests agree to: (*a*) furnish, free of cost to the United States, all lands, easements, rights-of-way, and spoil-disposal areas necessary for construction of the project and for subsequent maintenance when and as required; and (*b*) hold and save the United States free from damages due to the construction and maintenance of the improvement; and

(3) That the foregoing modifications be made subject to the further provision that the United States Steel Co. agree to provide at its expense suitable terminal and transfer facilities at its Fairless plant, including a turning basin if and when required.

The South Jersey Port Commission takes exception to the recommendation of the Chief of Engineers that local interests be required to "contribute in cash to the United States one-half of the actual additional cost of construction of the recommended improvement of the 40-foot channel in excess of the cost of a 35-foot channel."

At the public hearing held in Washington on February 11, 1952, by the Board of Engineers for Rivers and Harbors, some alarm was expressed by representatives of municipalities and industries situate in New Jersey that considerable damage might be caused by changes in the shoreline and salinity intrusion.

The apprehension regarding salinity intrusion has been dispelled by the report of Mr. Sheppard T. Powell, chemical engineer of Baltimore, Md., who was engaged by the Committee for Study of the Delaware River to make an engineering study to determine if the ground water supplies in New Jersey would be adversely affected by dredging the channel to the depth of 40 feet from Philadelphia to Newbold Island and thence 35 feet to Trenton. Mr. Powell's report was first presented at a meeting held April 8, 1954, arranged by Mayor Donal J. Connolly of Trenton and attened by the Honorable Robert B. Meyner, Governor of the State of New Jersey, and by representatives of many municipalities and industries on the New Jersey side of the Delaware River. Mr. Powell's general conclusions were:

"In summary, our interpretation of the hydraulic, chemical and bacterial data on the river shows no indication that the quality of the ground water in New Jersey will be damaged by the proposed enlargement of the channel above Philadelphia."

At the same meeting in Trenton on April 8, 1954, Col. Robert J. Fleming, Jr., the district engineer, Philadelphia district, dispersed the apprehensions of the various municipalities concerning bank protection and stabilization as well as the fears voiced by some that spoil would be deposited in front of residential properties along the river. The district engineer stated clearly that no spoil would be deposited in any area unless requested.

It is believed that all of the objections of industry and municipalities in the South Jersey Port District which have been brought to the attention of this Commission, have been removed, and the South Jersey Port Commission therefore urges the approval of the project without monetary contribution on the part of local interests.

Respectfully submitted.

SOUTH JERSEY PORT COMMISSION,
HENRY W. PETERSON, *Secretary.*

STATEMENT OF HENRY W. PETERSON, SECRETARY, SOUTH JERSEY PORT COMMISSION

Mr. PETERSON. Senator, I am Henry W. Peterson, secretary of the South Jersey Port Commission.

The South Jersey Port Commission, whose offices are located at the Camden marine terminals at the foot of Beckett Street in Camden, N. J., is a State agency created and established by the Legislature of New Jersey. The commission exercises the authority and powers of the South Jersey Port District, a public corporation and body politic. Among its defined powers are the survey, development, control and operation of port facilities in the port district and the furtherance of commerce and industry in the district.

The South Jersey Port District includes the counties of Mercer, Burlington, Camden, Gloucester, Cumberland, Salem, and Cape May, the seven tidewater counties in the State of New Jersey bordering on the Delaware River from Trenton to the sea.

I am not going to read this statement, in order to conserve time, but the South Jersey Port Commission endorses the recommendations of the division and district engineers, concurred in by the Board of Engineers for Rivers and Harbors and approved by the Chief of Engineers on November 18, 1953, and those three paragraphs are in the Chief's report.

The South Jersey Port Commission takes exception to the recommendation of the Chief of Engineers that local interests be required to "contribute in cash to the United States one-half of the actual additional cost of construction of the recommended improvement of the 40-foot channel in excess of the cost of a 35-foot channel."

At the public hearing held in Washington, on February 11, 1952, by the Board of Engineers for Rivers and Harbors, some alarm was expressed by representatives of municipalities and industries situated on the New Jersey side of the Delaware River that considerable damage might be caused by changes in the shoreline and salinity intrusion.

The apprehension regarding salinity intrusion has been dispelled by the report of Mr. Sheppard T. Powell, chemical engineer of Baltimore, Md., who was engaged by the committee for the study of the Delaware River to make an engineering study to determine if the ground-water supplies in New Jersey would be adversely affected by dredging the channel to the depth of 40 feet from Philadelphia to Newbold Island and thence 35 feet to Trenton.

Mr. Powell's report was first presented at a meeting held April 8, 1954, arranged by Mayor Donald J. Connolly of Trenton, and attended by the Honorable Robert B. Meyner, Governor of the State of New Jersey, and by representatives of many municipalities and industries on the New Jersey side of the Delaware River.

Mr. Powell's general conclusions were:

> In summary, our interpretation of the hydraulic, chemical and bacterial data on the river shows no indication that the quality of the ground water in New Jersey will be damaged by the proposed enlargement of the channel above Philadelphia.

And, digressing from the letter, I would like to say that the report of Mr. Powell confirmed the report of the Army engineers made prior to that, but still wasn't satisfactory to certain people and they wanted it confirmed.

At the same meeting in Trenton, on April 8, 1954, Col. Robert J. Fleming, Jr., the district engineer, Philadelphia district, dispersed the apprehensions of the various municipalities concerning bank protection and stabilization as well as the fears voiced by some that spoil would be deposited in front of residential properties along the river. The district engineer stated clearly that no spoil would be deposited in any area unless requested.

It is believed that all of the objections of industry and municipalities in the South Jersey Port District which have been brought to the attention of this commission have been removed and the South Jersey Port Commission, therefore, urges the approval of the project without monetary contribution on the part of local interests.

We believe that Senate 2317 is a good bill and should pass, sir.

Senator BUSH. Thank you very much, indeed.

Mr. LABRUM. Senator.

Senator BUSH. Colonel.

Mr. LABRUM. While we are on that subject, we have copies of that report by Mr. Sheppard T. Powell, and I would like his assistant, Mr. Wilson——

Have you got that report?

We will just enter it in the record and save some time, if we may, so your committee may have the benefit of that report.

(The summary referred to is as follows:)

SUMMARY OF FINDINGS[1] ON EFFECT OF ENLARGING THE SHIP CHANNEL IN THE DELAWARE RIVER ABOVE PHILADELPHIA ON GROUND WATER IN NEW JERSEY

Statement by Sheppard T. Powell, Consulting Engineer, Baltimore, Md., May 11, 1954

About a year ago we were employed by the Committee for the Study of the Delaware River, to make an engineering study to determine if the ground water supplies in New Jersey would be damaged by dredging the channel to a depth of 40 feet from Philadelphia to Newbold Island, and to 35 feet from there to Trenton. The committee was formed and financed by a group representing municipal and private interests. The study involves two phases: Part A relates to the river and part B[2] to the ground water. The river studies were conducted by the writer, and the ground water investigation by Leggette and Brashears.

It was of prime importance to gather factual information for providing specific answers to questions involving the effect of channel enlargement upon the quality of underground water supplies receiving recharge from the river.

INVESTIGATIVE PROGRAM

During the year a massive amount of data and information has been assembled and evaluated. In addition to the existing records available from various sources, covering a period of more than 28 years, we have secured information by sampling and testing of river and well waters, and have taken and analyzed test borings. Also, we have conducted studies at the Johns Hopkins University and obtained assistance from the Chesapeake Bay Institute. Further, we have utilized information from the Woods Hole Oceanographic Institution and received assistance from other authorities.

A summary of our conclusions, in answer to vital questions, is as follows:

[1] The report is now being prepared and will be made available to the Committee for Study of the Delaware River as soon as completed.

[2] The underground water studies are not incorporated in this summary but will be included in our final report.

SALT WATER CONTAMINATION

(1) Salt water does not penetrate up the river along the bottom, while fresh water flows on top, as occurs in some tidal rivers. Stratification of salt and fresh water does not occur in the Delaware River except at locations below Wilmington, even during extremely low flows of the river.

(2) The concentration of salt in the river water at or above the Torresdale filter plant will not be increased by enlarging the channel above Philadelphia. The Torresdale filter plant is located 7½ miles north of Allegheny Avenue, Philadelphia, and about 23 miles below Trenton. The maximum chloride content in the water observed in one sample during a 28-year period was 28 parts per million, equivalent to 46 parts per million of sodium chloride (common salt). The maximum monthly average concentration of chlorides for the 28-year period, based on weekly samples taken at this point, was only 21 parts per million of chlorides, or 35 parts per million of salt. Sea water contains about 19,000 parts per million of chloride, or 31,000 parts per million of salt. The United States Public Health Service states that chlorides in drinking water should not exceed 250 parts per million (412 parts per million of salt). Below this concentration few persons can detect chlorides by taste.

Far lower concentrations than the above figure will be reached in the Philadelphia area and upstream. Even if the ground water supplies in New Jersey should receive 100 percent of recharge from the river, chlorides in these supplies would not be excessive.

Tests made by the Army engineers on the Vicksburg model of the Delaware River indicated that enlargement of the channel above Philadelphia will not not increase the chlorides in the water in any part of the river.

Our mathematical studies of chlorides in the water confirm the Vicksburg findings. The mathematical concept used was based on formulas developed at the Woods Hole Oceanographic Institution at Woods Hole, Mass., a recognized authority. Our calculations were checked by Dr. John C. Geyer of the Johns Hopkins University. A portion of Dr. Geyer's letter-report is quoted verbatim:

"I have reviewed the analyses titled 'Effect of Proposed Channel Enlargement on Salinity in the Altered Portion of the Delaware River Estuary' and believe that the conclusion reached that the chloride content of the river above Philadelphia will be less after the channel is enlarged is correct."

TASTES AND ODORS

The river water between Philadelphia and Trenton contains tastes and odors at all times, due to pollutants discharged into the river at various locations. Occasionally, chemical spills into the river have created highly objectionable conditions. Irrespective of the quality of the river water in this respect, the ground water in New Jersey has been free from tastes and odors traceable to river water. Of 65 individual wells investigated, extending from Gloucester to Florence, not a single case of tastes and odors attributable to river water contamination was found.

From these observations it is apparent that the compounds responsible for tastes and odors are removed or destroyed by passage through the water-bearing formation. The removal of a relatively few feet of the river bottom will not materially alter the time of travel of river recharge water to the wells.

EFFECT OF ENLARGEMENT OF THE CHANNEL BELOW PHILADELPHIA

During the period 1930–53, the quality of water in the Delaware River has been under constant observation, with particular reference to chloride concentrations. In the more recent drought years of the period, observed chlorides below Philadelphia have been higher than those of comparable earlier yiers. Several theories have been advanced to explain these increased chlorides. The effect diminishes rapidly as Philadelphia is approached from downstream and is inconsequential in and above that city. This is due to the progressive increase in the proportion of fresh water in the estuary mixture in the upstream direction. Our investigation indicates that enlarging the channel further upstream will not increase present low flow chlorinites at or above Philadelphia. It will, in fact, add to the storage of fresh water and further minimize chlorinites in the upper river.

ADDITION OF UPSTREAM STORAGE RESERVOIRS

The increased flow of the river measured at Trenton under the proposed releases of water from the reservoirs in New York will improve the quality of the surface water at low stages of the river in the Philadelphia-Camden area and above.

The first step of the formula will be effective this year and assure a minimum flow at Montague of 1,525 cubic feet per second (c. f. s.) which will provide a flow at Trenton of 2,200 c. f. s. After Cannonsville is completed (1966) the minimum flow at Montague will be increased to 1,750 c. f. s., corresponding to a flow at Trenton of 2,600 c. f. s. The lowest flow on record at Trenton is 1,250 c. f. s. in 1932.

Any additional water which can be made available by impounding reservoirs installed in the future above Trenton and below Port Jervis, N. Y., and the release of water therefrom to maintain even higher flows during drought periods, will still further improve the quality of surface water which at many points furnishes recharge to ground water supplies.

GENERAL CONCLUSION

In summary, it is concluded that the quality of the ground water in New Jersey will not be damaged by enlargement of the channel above Philadelphia.

Senator BUSH. We will be very glad to have it.

Mr. LABRUM. Mr. Powell, by the way, confirms what the Army engineers found out in their experiment at Vicksburg, which came to the same conclusion that is in Mr. Powell's report.

Thank you very much, Mr. Wilson.

These are copies of the summary of the report. I will leave five with you.

Senator BUSH. Thank you very much.

At this point I would like to ask the engineer, either General Itschner or Colonel Milne, as the general may decide, this question: Would you care to comment on the recommendation of the engineers that a part or half of this cost be assumed by the locally affected areas, and what is the background of that recommendation; what is the precedent for it, and so forth, in matters of this kind.

Colonel MILNE. Yes, Mr. Chairman.

The Congress has directed that in the consideration of any navigation project the Corps of Engineers analyze the benefits very thoroughly to determine which, if any, are local benefits, and to recommend to the Congress local cooperation commensurate with the degree of local benefits.

In our analysis of this project, we came to the conclusion that either the 40- or the 35-foot projects were economically justified.

We then contacted the industries, in the area along the channel concerned. We also attempted to contact the potential industries that would move into the area to see what type of ship they might utilize.

We found in our study that all of these companies would use the waterway, but the type of ship that they would use would not require a channel of a depth greater than 35 feet, with the exception of United States Steel, who did require a 40-foot channel to transport their ore.

So, accordingly, the Chief of Engineers felt that a 35-foot channel had general benefits because it would be utilized by a great number of shippers. However, he could find no indication that a 40-foot channel is required now or in the future by any industry other than the United States Steel. He recognized that the provision of that channel did have general benefits, but he also felt that, because of the

single company use, there should be a contribution, and, therefore, he recommended that one-half of the extra cost of going from 35 to 40 feet, should be borne by United States Steel or other non-Federal interest.

Senator BUSH. By the United States Steel Corp.?

Colonel MILNE. The recommendations of the Chief of Engineers were that the local contribution should be assured by responsible local interests.

The CHAIRMAN. Senator.

Senator BUSH. May I ask the colonel a question on that point, Senator, if I might pursue that?

The CHAIRMAN. Certainly. You go ahead.

Senator BUSH. Just a second.

The CHAIRMAN. You go ahead.

Senator BUSH. In the history of this type of development work, is there precedent for that type?

Colonel MILNE. There have been a number of examples, Mr. Chairman, where the Corps of Engineers has recommended a local cash contribution and such contribution has been approved by the Congress and has been made by those interests.

Now, I might say that there has been no example where the degree of local contribution reached this amount.

Some specific examples that come to my mind:

In the New England area, in Town River, Mass., where we found that provision of a certain depth produced both local and general benefits, but there was a great deal of local benefit involved, project modification by the 1937 River and Harbor Act provided that the local people pay 30 percent of the cost of that project, which they did.

Very recently we have recommended to the Congress further improvement of Town River, where we also found a substantial amount of local benefits, and we recommended that a 25 percent contribution be made in that particular case.

In the case of Houston Ship Channel, when it was originally dredged to 30 feet, we recommended that local interests pay one-half of the cost, which amounted to $1 million, and they did that.

In the Stockton Deepwater Channel in California, we also recommended that local interests pay one-half of the cost, which they did.

Our recommendations as to the degree of local contribution are based entirely on our analysis as to the degree of local benefits versus general benefits.

Senator BUSH. Thank you very much, Colonel.

The CHAIRMAN. Senator.

Senator BUSH. Senator Martin.

The CHAIRMAN. Colonel, your first report didn't recommend a local contribution, did it?

Colonel MILNE. No; that is correct, sir. The first report of the Chief of Engineers was entitled "A Tentative Report" and that report was transmitted to the Governors of the States.

I might say at this point that, prior to completion of processing that report, we received instructions from the Secretary of the Army to review all reports that had not been transmitted to see whether or not they conformed with policy of the administration. The Chief of Engineers, in his review, came to the conclusion that deepening below

35 feet did have a substantial amount of local benefits and, accordingly, he recommended this cash contribution. He felt not only were there local benefits involved, but he also felt that it is in keeping with the policy of the present administration to require a greater degree of cooperation between local interests and the Federal Government in all types of waterway improvements.

Senator BUSH. Thank you.

The CHAIRMAN. Colonel, the first report, from my recollection, and I am just trying to review it hurriedly here, recommended a depth of 40½ feet.

Colonel MILNE. It was 40 feet, sir, in soft material, and 42 feet in rock.

The CHAIRMAN. And it was after you made a review that it was suggested this contribution of approximately $18 million be made?

Colonel MILNE. That is right, sir, and I might say, Senator, that first report of the Chief of Engineers, when it was sent to the State, was entitled a tentative report only. It had never been transmitted to the Congress.

Senator BUSK. Thank you very much, Colonel.

The CHAIRMAN. Senator Bush.

Senator BUSH. Senator Martin.

The CHAIRMAN. I would like to place in the record at this point a statement by Congressman William T. Granahan of Pennsylvania.

Senator BUSH. Without objection, the statement will be received and placed in the record.

(The statement referred to is as follows:)

STATEMENT BY CONGRESSMAN WILLIAM T. GRANAHAN, DEMOCRAT, OF PENNSYLVANIA

Chairman Martin and members of the committee, I appreciate your invitation to appear here today and present my views on the bill before you dealing with the absolutely necessary improvement of the Delaware River Channel from Philadelphia to Trenton.

There has been some confusion over the two Delaware River projects in which Philadelphia is very deeply interested. One, as you know, involves only the size of appropriations being voted by the Congress this year to restore the Delaware River Channel from Philadelphia to the sea—restore it to its already authorized depth of 40 feet. The channel which provides Philadelphia's outlet to the sea has been allowed to silt up over the years so that it would require something over $8 million to put it back into proper shape. This is an immediate, urgent problem—a problem not before this committee but rather before the Appropriations Committee. Since senior members of this committee sit as ex officio members of the Senate Appropriations Subcommittee handling Army civil functions appropriations, I am urging that you use all of your persuasive power and influence to get us the $8 million we need for immediate work in restoring the existing channel to 40 feet.

It is not only commerce which is suffering from the inadequate channel depth now in effect. Lives are being lost from this tragic situation. So, again, I urge those of you on this committee who sit as ex-officio members of the Senate Appropriations Subcommittee on Civil Functions to help us get the adequate appropriation we need to deepen the Philadelphia-to-the-sea channel to its authorized 40-foot depth.

DELAWARE RIVER CHANNEL—PHILADELPHIA TO TRENTON

The bill presently before you today does not, of course, touch on the matter I discussed at the start of my testimony. S. 2317 deals with the upper channel—running northeast from Philadelphia's Navy Yard to Trenton. This bill would make possible the dredging in the future of that channel to 40 feet as far as Morrisville and to 35 feet from there to Trenton. Since the project has not

previously been authorized by law, the first step must be the passage by both Houses of Congress of an authorization bill like this so that it will then be possible later to pass appropriations to begin the work. Until the authorization bill is passed and becomes law, obviously no funds can ever be appropriated for it.

That is why we in the Philadelphia area are so anxious to see action on this matter in the remaining days of this session of Congress. The need for the work becomes daily more acute and pressing. Therefore, unless an authorization bill is passed in this session, we will have to start all over again in the new Congress beginning next January—start over from scratch with a new authorization bill—that will further delay the time when we can seek and obtain actual construction funds in an appropriation bill. If the authorization is passed this year, I am hopeful we can get funds into the Civil Functions Appropriations bill early next year and get going with this vital work.

The committee will be hearing from numerous spokesmen for Philadelphia's business, industry, and maritime interest on this measure, proving the general unanimity in our area in behalf of this project. We want it built, particularly as the Congress has now voted for the St. Lawrence seaway.

Senator BUSH. Mr. Ed Neibauer, president of the chamber of commerce, Lower Bucks County, Bristol, Pa.

STATEMENT OF EDWARD W. NEIBAUER, PRESIDENT OF THE GREATER LOWER BUCKS CHAMBER OF COMMERCE, BRISTOL, PA.

Mr. NEIBAUER. Mr. Senator, my name is Edward Neibauer, and I represent the Greater Lower Bucks Chamber of Commerce.

I have a prepared statement that I would like to place in the record.

Senator BUSH. Without objection, the statement will be received and placed in the record.

(The prepared statement submitted by Mr. Neibauer is as follows:)

The Greater Lower Bucks Chamber of Commerce, with offices in Bristol, Pa., was established in July 1945, and at the present time enjoys an active membership of over 400 business and industrial firms and individuals in a broad adjacent to the Delaware River between Bristol and Yardley, in Bucks County. It is a member of the United States Chamber of Commerce and the Pennsylvania State Chamber of Commerce; and as the only presently active chartered chamber of commerce in Lower Bucks County, it is properly representative of practically all of the industry in this important area.

Lower Bucks County, as it is known geographically, has 215 manufacturing or other industrial plants within its area, representing an annual volume of $230 million in products; 60 percent of this volume is produced in areas immediately adjacent to the Delaware River.

What is of equal significance to the considerations of the Congress with respect to proposals to provide a deeper channel of the Delaware River above Philadelphia is the fact that a survey just completed shows a total of 5,900 acres in Lower Bucks County that is available for industrial expansion. Of this amount, 3,693 acres are already zoned for industrial use. Potentially, Lower Bucks County has ample room to accommodate a substantial number of new industries that may be expected to gravitate into an area immediately adjacent to a new and greater port region.

Lower Bucks County offers many attractions to new industry. Not only is this section situated in the approximate center of one of the largest concentrated consumer markets in the world—with a third of our national population living within 300 miles of this point—the area offers ample room for industrial expansion, an adequate source of fresh water for industrial use, a new and potentially greater source of basic steel, the finest rail and highway transportation in the East, and a program of public utilities that is keeping abreast of industrial development. Housing development in the area leads the Nation.

Add to these factors, all important to industry, a greater deep water route to other coastal and foreign markets, and Lower Bucks County becomes the most logical location for new industry in the United States.

The board of directors of the Greater Lower Bucks Chamber of Commerce respectfully submits that, not only do all of the above-stated factors relate to the urgent need for a deeper channel of the Delaware River, as recommended by the Army Corps of Engineers, and a greater potential development of this important area, but still another vital consideration is available here that will provide a tremendous attraction to new industrial expansion. This is the climate which is being created by progressive groups throughout the area, in which every cooperation is being extended that will help new industry to grow and prosper. New plants go where they are wanted, and the Greater Lower Bucks Chamber of Commerce is constantly demonstrating that they are wanted in Lower Bucks County.

It is submitted that a 40-foot channel to Newbold Island and a 35-foot channel upstream from that point to Trenton will give a tremendous impetus to new industrial growth in broad areas on both sides of the Delaware River. Such development will not only enhance the economic strength of this important section, but will bolster our entire national economy; and will further establish a substantial new source of customs and other revenues to the Federal Government. It is submitted that increased customs receipts, increased personal and corporate income within the area, will return more than the total cost of the deepening project to the Federal Government within a short space of years. It is the position of the board of directors of the Greater Lower Bucks Chamber of Commerce that this is an investment the Federal Government can ill afford to reject as it looks for new and permanent sources of income.

We desire the record to show that the entire business and industrial community in this important area firmly supports the proposal to provide a 40-foot channel of the Delaware River upstream to Newbold Island, and 35 feet from that point to the Trenton marine terminal. We further support the position that the total cost of this project, which has been called economically justified by the Army Engineers, should be undertaken by the Federal Government. The Greater Lower Bucks Chamber of Commerce respectfully petitions approval by the committee of the bill now under consideration, which will authorize this important project.

Respectfully submitted.

GREATER LOWER BUCKS CHAMBER OF COMMERCE,
By EDWARD W. NEIBAUER, *President*.

MAY 13, 1954.

Mr. NEIBAUER. And, with your permission, I would like to make a few remarks.

Senator BUSH. Will you proceed, sir?

Mr. NEIBAUER. The lower Bucks County stretches from the city limits of Philadelphia in Torresdale to above Trenton, along the Delaware River, and will, of course, benefit from this project.

Senator BUSH. Would you just indicate that on the map for me, please?

Mr. NEIBAUER. Yes.

At this point is the beginning of Bucks County, and it stretches right along the river to Trenton, and continues on above.

Our organization is in favor and supports this bill now before this committee, but as representative of 400 business and industrial members of lower Bucks County, we certainly do object to any local private interest contributing to the cost of this deeper channel. We feel that as a precedent in our area it is an imposition on industry and business.

Thank you.

Senator BUSH. Thank you very much, indeed, sir.

Mr. Snowden Haines, president of the Burlington, N. J., Chamber of Commerce.

STATEMENT OF I. SNOWDEN HAINES, PRESIDENT OF THE BURLINGTON CITY CHAMBER OF COMMERCE, BURLINGTON, N. J.

Mr. HAINES. I represent the ancient port of Burlington, which is on the Delaware River, right in the center of this activity center.

I would like to advance an argument here that I believe does have some importance.

Senator BUSH. Excuse me, sir. Is that your prepared statement?

Mr. HAINES. We have a prepared statement.

Senator BUSH. Would you like to have it incorporated in the record at this point?

Mr. HAINES. Yes, sir.

Senator BUSH. Without objection, it is so ordered.

(The prepared statement submitted by Mr. Haines is as follows:)

CHAMBER OF COMMERCE,
Burlington, N. J., May 10, 1954.

PUBLIC WORKS COMMITTEE,
United States Senate, Washington, D. C.

GENTLEMEN: The board of directors of the Burlington City Chamber of Commerce have been empowered by vote of the general membership to urge the deepening of the Delaware River Channel to Trenton, in order to provide ready access to Burlington and other river ports by oceangoing ships.

The Board of Chosen Freeholders of Burlington County engaged the services of Dr. Gerald Breese, director of the bureau of urban research of Princeton University to make a comprehensive report on the industrial land use of Burlington County. This report indicates that this area offers real advantages for the location of new industry which will become more important and more accessible when the Delaware River is deepened. Our chamber fully endorses the recommendations in this report.

We desire to go on record, therefore, before your committee as unanimously supporting approval of legislation authorizing the deepening of the Delaware River channel to 40 feet from Philadelphia to Newbold Island and 35 feet from that point to Trenton. We believe, moreover, that this project could be self-liquidating from customs revenue and thus one of the soundest investments the Government could make.

Respectfully yours,

I. SNOWDEN HAINES, *President.*

Mr. HAINES. Thank you, Senator.

Senator BUSH. Proceed, please.

Mr. HAINES. The Burlington area—the Burlington County area—I must say now has experienced a 40-percent increase in population in the last 3 years.

We have in our county, which is a small part of this whole area, 17 new industries.

I just want to take this opportunity to state this much: I haven't heard this idea advanced, and that is the Delaware River Valley, the Delaware River port, is the center of an area comprising perhaps as much as 20 percent of the whole United States, and I am talking about an area of 300 miles from the Delaware Valley itself.

Now, not so long ago we had the experience of the port of New York being tied up by serious strikes. The port of Baltimore has been tied up. A countless amount of money has been lost because of those strikes. Fortunately, the Delaware River port at that time did not experience anything of that sort. We are somewhat out of the influence, I suppose, of the longshoremen of New York and the longshoremen of Baltimore.

I just wanted to point out to you, Senator, this area, being in the center and possibly free at one time or another from a strike or some difficulty, would give us an avenue, would give the United States an avenue, would give our area an avenue of commerce that perhaps would be free when some other point in our vital area might be tied up.

I wanted to advance that theory. I thought perhaps that might have some weight.

Thank you, sir.

Senator BUSH. Thank you very much, indeed, Mr. Haines.

Mr. Chester C. Thompson, president of the American Waterways Operators.

Mr. THOMPSON. Yes, sir.

Senator BUSH. Do you have a prepared statement?

STATEMENT OF CHESTER C. THOMPSON, PRESIDENT, THE AMERICAN WATERWAYS OPERATORS, INC.

Mr. THOMPSON. I have filed my statement.

Senator BUSH. We have a copy?

Mr. THOMPSON. Yes, sir.

Senator BUSH. Without objection, your statement will be incorporated in the record at this point.

(The prepared statement submitted by Mr. Thompson is as follows:)

STATEMENT OF CHESTER C. THOMPSON, PRESIDENT, THE AMERICAN WATERWAYS OPERATORS, INC., WASHINGTON, D. C.

My name is Chester C. Thompson. I am president of the American Waterways Operators, Inc., a voluntary nonprofit national association of domestic water carriers and operators serving the inland rivers, canals, and waterways, and the bays, harbors, and sounds of the United States. The association maintains its principal office at 1319 F Street NW., Washington, D. C., with regional offices in New Orleans and New York City.

It is the policy of this association to endorse and to urge the consummation of navigation improvements which are economically justified. Therefore, it is in favor of S. 2317, providing that the existing projects—(1) the Delaware River from Philadelphia, Pa., to the sea, and (2) the Delaware River from Philadelphia to Trenton, N. J., be further modified to authorize the improvements recommended by the Chief of Engineers in his report of January 23, 1953, at an estimated cost of $91,389,000.

The American Waterways Operators, Inc., believes the Delaware River project is highly essential to the unimpeded growth of the whole industrial area encompassed by the Delaware River Valley. Expansion is the keynote of the valley's economic picture. Since World War II manufacturing industries have expended billions of dollars in enlarging and modernizing their production facilities. In 1935 it is reported that $314 million was spent on new machinery and increased capacity alone, and an additional $370 million is being made available for improvement of existing facilities during 1954.

Multi-million-dollar oil and chemical operations are among those industries making huge outlays for industrial development. One of the most important additions to this development is the year-old $400 million Fairless works of the United States Steel Corp. in Bucks County, Pa. Other large steel companies already in operation with new and expanded facilities are planning to locate along or near the Delaware River. The improvement of this river will enable that array of industries to efficiently utilize low-cost water transportation, which is vital to their transport requirements for receipt of large volumes of raw materials and the shipping out of a great variety of finished products.

While this association favors the improvement of the Delaware River to a 40-foot depth, as the Chief of Army Engineers said was justified, it strongly opposes a recommendation made in paragraph 6 of his report of January 23, 1953. The particular recommendation referred to provides that responsible

local interests, prior to initiation of construction of the proposed improvement, shall give the Secretary of the Army satisfactory assurances that they will contribute in cash to the United States one-half of the actual additional cost of construction of the proposed improvement of the 40-foot channel in excess of the cost of a 35-foot channel. This half, according to the report of the Chief of Engineers, aggregates about $18 million. In plain language, this recommendation would place a user charge on those who utilize a depth of greater than 35 feet.

The opposition of the American Waterways Operators, Inc., to the contribution from potential beneficiaries of one-half of the cost of the incremental depth from 35 to 40 feet in connection with the proposed project is based on, and was authorized by, the following resolution, which was unanimously adopted by its board of directors at a meeting in Houston, Tex., on December 8, 1953, after full consideration of the recommendation of the Chief of Engineers:

"*Be it resolved*, That The American Waterways Operators, Inc., opposes the recently announced proposal of the Chief of Engineers, Department of the Army, in which he advocates the levying of 'river utilization' fees to reimburse the Federal Government for expenditures incurred in the improvement of the Delaware River between Philadelphia, Pa., and Trenton, N. J., as a matter of principle; that on engineering projects of this nature the recommendations of the Chief of Engineers should be based solely upon economic justification of the proposed improvements and when this has been determined the entire cost should be borne by the United States Government; and, further, the officers of this association are hereby directed to implement this declaration of policy by making it known to the Congress, the Secretary of the Army, the Chief of Engineers, and other appropriate officials."

The adoption of the recommendation of the Chief of Engineers as to the private contribution for the depth of over 35 feet undoubtedly would set a precedent for the levying of user charges on other waterways. The resulting widespread imposition of user charges—as this association previously informed the Congress through the Senate Committee on Interstate and Foreign Commerce in the 82d Congress—would adversely affect the economy of waterway transportation and its important place in the national transportation structure. This growing industry would be throttled to the point where it could not reach its full usefulness to the Nation.

The assessment of user charges on the waterways improved by funds authorized by the Congress would be contrary to long-established national policy; in fact, a policy dating from the beginning of the Nation. This policy, which has been advocated and adhered to consistently by the Congress, has been to regard the navigable waters of the United States as public highways, open to the use of the public generally, and to permit no restriction on their utilization in the form of user or operating charges.

In our form of Government, public and private funds should not be comingled to finance an improvement belonging unqualifiedly to the public and open, without discrimination, to all who respect the laws and regulations governing its use. The people are already taxed to provide necessary national improvements, and to impose user charges on the Delaware River or other waterways would constitute double and unreasonable taxation.

It is respectfully urged, therefore, that S. 2317 be amended to provide that no portion of the funds authorized for the improvement of the Delaware River, as set forth therein, will be required to be reimbursed by those utilizing or desiring such improvement.

Mr. THOMPSON. I just wanted to say, Mr. Chairman, the American Waterways Operators, which consists of operators of barges and tow vessels in the so-called shallow-draft waters, are very much in favor of this legislation for the improvement, modification of the existing project on the Delaware River, like every other witness I have heard so far.

Our group is very much opposed to the requirement that the local interests make a contribution in cash, or otherwise, for this improvement.

Senator BUSH. Yes, sir.

Mr. THOMPSON. We of the inland water transportation industry view a proposal of that kind as approaching the imposition of tolls

or using charges. It would be payment in advance rather than by the ton or any other method that might possibly be thought of and, therefore, we hope this bill will be reported, with an appropriate amendment to eliminate the requirement for the local contribution.

Senator BUSH. Thank you very much, indeed, sir.

Mr. LABRUM. Senator.

Senator BUSH. Colonel LaBrum.

Mr. LABRUM. Congressman Howell of New Jersey is here now and would like to be heard. He has another meeting he must go to.

Senator BUSH. The committee will be very glad to hear Congressman Howell.

We are very glad to have you here, sir.

Mr. HOWELL. Thank you, sir.

Senator BUSH. We are limiting the witnesses to 5 minutes, if you don't mind.

STATEMENT OF HON. CHARLES R. HOWELL, A REPRESENTATIVE IN CONGRESS FROM THE FOURTH DISTRICT OF THE STATE OF NEW JERSEY

Mr. HOWELL. That suits me fine. We in the House are used to that.

Mr. Chairman, I wanted to get over here earlier but things got a little bit messed up. However, I do appreciate a chance to say a few words on this.

First of all, Governor Meyner of New Jersey wanted very much to come down this morning but, due to the pressure of other affairs, asked me to express his very strong approval of this project. He thinks, as I do, that it is vitally needed; it is tremendously necessary to the development of that Delaware River area there that is such a potentially booming area, due primarily, of course, to the location there of this large steel plant, the Fairless works and the attendant plants along with it, plus the regular substantial industry that we already have in that area.

I know the Army engineers' report deals with the statistics and figures and the reasons why they feel the project is necessary, and I don't think it is up to me to repeat those things at the present time.

My own personal feeling on the matter is that we should have the 40-foot authorization from Philadelphia to at least the Newbold Island, where the Fairless works is located, and probably a 35-foot authorization up to the Marine Terminal in Trenton.

It is my further thinking, while there may be some controversy as to the sharing of the costs between the 35- and 40-foot depth, that that need not be faced at this time.

If we have this 40-foot authorization, when it comes to the point of appropriations to implement that authorization, probably the most realistic thing at the present time would be to get the appropriation for the 35-foot channel and as traffic develops there and other uses develop, then we would know whether United States Steel would be the sole and primary beneficiary or whether other firms would benefit by the use of the deeper channel, and at that time the question could be resolved as to the point in the Army engineers' recommendation that they share the cost of the work between 35 feet and 40 feet.

So, I think many people agree with me that the realistic thing is to get the authorization and get funds as speedily as possible to dredge

the 35-foot channel and await further developments as to whether and when the extra 5 feet is necessary.

The people in my congressional district, which borders on the Jersey side of all of this project, are in the main very substantially and strongly in favor of it. Everyone is convinced it is necessary and in the national interest as well as the interests of our Delaware Valley area there.

I think, in sum and substance, that is my testimony. I strongly urge that your committee do adopt the authorization for the 40-foot channel up to Newbold Island and probably 35 feet to the Marine Terminal at Trenton, and I hope that can be accomplished at this session of Congress so that next year we can concentrate on at least getting a portion of the funds needed to get this project under way.

Senator BUSH. Thank you very much, Congressman.

Mr. HOWELL. Thank you very much, Senator.

Senator BUSH. Thank you.

Is there anyone here who wishes to testify in opposition to this bill?

Dr. WINKELSPECHT. Yes.

Senator BUSH. What is your name, please?

Dr. WINKELSPECHT. Dr. Winkelspecht.

Mr. LABRUM. Senator, before closing the proponents' side, I would like to offer——

Senator BUSH. It is not being closed. The hearings will continue after the gentleman testifies.

Mr. LABRUM. Oh, I see. I wanted to offer in evidence some booklets.

Senator BUSH. We will hear Dr. Winkelspecht, from Beverly, N. J.

Dr. WINKELSPECHT. That is correct.

Senator BUSH. Would you care to identify yourself, for the record?

STATEMENT OF DR. HAROLD WINKELSPECHT, DIRECTOR, DELAWARE RIVER VALLEY ASSOCIATION

Dr. WINKELSPECHT. I am one of the members of the board of directors of the Delaware River Valley Association.

Senator BUSH. Will you describe that a little bit, please?

Dr. WINKELSPECHT. The Delaware River Valley Association is a group made of about four original organizations who oppose this individually, the group from Delanco, the group from Florence, a group from over on the other side of the river, and a group from Riverton, and now we have combined into the Delaware River Valley Association for the proper development of the Delaware River Valley.

Senator BUSH. May we get a little bit clearer picture of this group?

You say the Delaware River Valley Association is composed of several groups.

Dr. WINKELSPECHT. Well, originally——

Senator BUSH. What are those groups?

Dr. WINKELSPECHT. They were groups of citizens in the different communities.

Senator BUSH. Can you identify those communities, for the record?

Dr. WINKELSPECHT. Yes; Florence, N. J. was one of them. Florence is one of the communities where the channel is going to go very close to the shoreline and there has been an appropriation or an amount set aside in the bill to take care of building an abutment or wall to protect Florence.

So, that was one of the original groups. The other was Delanco, the community in which I live, and I live right on the river. I took a look at the river before I left.

Mr. LaBrum. Is that New Jersey?

Dr. Winkelspecht. That is New Jersey.

And another group is the community of Riverton.

Mr. LaBrum. That is New Jersey, too?

Dr. Winkelspecht. That is New Jersey.

Riverton has a mayor, Mayor George Becton, who is the chairman of the board of directors and the president of this association.

And then we have men from Bristol who are interested in industry on that side of the river.

We come from above the area where Bristol is going to be protected.

Senator Bush. Will you identify that for me on the map?

Where is Bristol?

Dr. Winkelspecht. Here, of course, is Philadelphia.

Here is Bristol, right here, across from Burlington.

Here is Beverly, Delanco. Right here is where I live.

Riverton is down a little farther.

Trenton is up here.

Senator Bush. Are these groups that you speak of informal groups who have sort of been formed to take an interest in this issue?

Dr. Winkelspecht. That is right.

Senator Bush. They were formed for that purpose?

Dr. Winkelspecht. Well, not solely for that purpose.

Senator Bush. Have they been in existence before this matter was under discussion?

Dr. Winkelspecht. They have been in existence. This was the chief thing that started it. They were also interested in railway transportation, getting better transportation into this area. We need better rail transportation into our area. They are interested in that also.

Senator Bush. Have you a prepared statement?

Dr. Winkelspecht. Yes; I have a prepared statement.

Senator Bush. Does your prepared statement give a good description of the groups that you do represent?

I think it is very important for the committee to understand the nature of the constituency that you represent.

Dr. Winkelspecht. It describes that, but more briefly than what I did. It doesn't name the groups. It doesn't name them individually. It just says "numerous groups."

Senator Bush. Does it indicate their numbers?

Dr. Winkelspecht. No; it doesn't indicate their numbers.

The Chairman. Mr. Chairman.

Senator Bush. Senator Martin.

The Chairman. Could I suggest when he goes home that he write a letter to the committee, giving us a list of these various organizations and the number in each organization and so forth?

Senator Bush. Yes.

Dr. Winkelspecht. I can do that.

Senator Bush. It is very important. I agree with the Senator that it would be well to do that.

Dr. Winkelspecht. You see, this was sprung on us on 24 hours' notice. I don't know how much notice the other people had who

are testifying here, but we got a telegram from Senator Martin day before yesterday.

Mr. LABRUM. So did all of us.

Dr. WINKELSPECHT. Well, that is pretty short notice.

Now, Mr. Becton stayed up until 3 o'clock this morning to get this statement prepared, and it is brief and to the point, but there are a lot of other things that are not in it that are very important.

Senator BUSH. May I see the statement?

Dr. WINKELSPECHT. Yes.

Senator BUSH. Are there several copies there or is there just one?

Dr. WINKELSPECHT. No. There are about three pages to the statement, and then there is another communication, a part of a talk given by Dr. Nelson, who is chairman of the Water Policy and Supply Council of the State of New Jersey. We took a part of his talk to bring out certain points in our prepared statement.

Senator BUSH. Without objection, the committee will receive this statement and it will be placed in the record at this point.

Dr. WINKELSPECHT. All right.

(The statement referred to is as follows:)

DELAWARE RIVER VALLEY ASSOCIATION,
May 13, 1954.

Re Report relative to the proposed improvement, Delaware River between Philadelphia, Pa., and Trenton, N. J., Senate bill No. 2317

PUBLIC WORKS COMMITTEE,
United States Senate, Washington, D. C.

GENTLEMEN: The members of the Delaware River Valley Association wish to go on record as being entirely opposed to the proposed deepening of the Delaware River channel from Philadelphia to Newbold Island to the depth of 40 feet and thence to Trenton to a depth of 35 feet as an unwarranted expense of taxpayers' money that is not justified by the benefits anticipated.

The purpose of the Delaware River Valley Association is to encourage and support the proper development of the Delaware Valley and the membership of the association is made up of business and professional men, municipal and industrial officials, as well as interested private citizens from Bucks County, Pa., and Burlington County, N. J. The association was formed during the fall of 1952 and a careful study of the problems of the proposed dredging project has been continued ever since. The main points of our objection to the proposed dredging of the deeper channel are:

1. The 25-foot channel is adequate for present and future needs.
2. Subsidy.
3. Threat to New Jersey water supply.
4. Damage to sea walls.

No. 1: The report of the United States Army engineers reveals that no study has been made on actual shipping or shipping costs of any industry along the Delaware River other than United States Steel Co. This seems to indicate that there are no presently located industries that have sufficient waterborne shipping requiring a 40-foot channel as to warrant consideration in this report. A recent survey, on waterborne shipping by industries in the deeper channel area, conducted by our association supports this assumption in the engineers report. This calculation also points to the adequacy of the present 25-foot channel for most waterborne shipping in the upper Delaware by companies other than United States Steel. In this connection it is timely to point out that the 25-foot channel is presently permitting oceangoing ore boats, without the aid of tugs, to make daily deliveries directly to the Fairless works—in volume estimated to be sufficient to keep the plant running at its present full capacity. Should not this important fact be given consideration in calculating the economies of the project? This lack of evidence, that other companies will utilize a 40-foot channel, if constructed, may be attributed to the high capital investment that individual industries will be required to make for the construction of proper docking facilities to handle oceangoing vessels needing a 40-foot channel.

A case in point to illustrate the fallacy of conceding that an industrial plant location along the Delaware River is selected because of the availability of low-cost waterborne shipping. The Haeganaes Sponge Iron Corp. of Sweden is now operating their recently constructed new plant located at Riverton, N. J. This industry imports all of its iron ore from Sweden and other foreign countries. Although the company owns sufficient ground on the banks of the river it does not find it practical to construct docking facilities to receive bulk ore directly from oceangoing vessels because of the dock construction costs involved. Annual shipping costs for receiving iron ore at the municipal docks in Camden, N. J., and transport by rail to the plant of Riverton are far below the cost of dock construction, maintenance and amortization program. Thus it is apparent that it takes an enormous industry, camparable in size and operation to the Fairless works, to justify the costs of dock construction to accommodate 40-foot channel shipping and highly impractical to concede the possible future location of industries along the upper Delaware because of the availability of deepwater shipping.

No. 2, subsidy: There is little doubt that the cost of dredging a 40-foot channel from Philadelphia to the Fairless works and the subsequent savings in shipping costs to United States Steel Co. is virtually a Federal subsidy for this individual industry. We contend that the location of the Fairless works was selected because it permitted the steel company to dominate two tremendous markets (New York—New England and Philadelphia—Baltimore) from a single location. This location makes possible a short haul by rail or motor freight to these two great markets of the eastern seaboard. Dependence on shipping-cost savings, made possible by a 40-foot channel, for efficient and low-cost operation of the Fairless works, could not have been safely included in the original location plans and therefore we conclude this shipping-cost advantage to be an unexpected dividend. The cost to the American taxpayer for the building of a 40-foot channel should not be used to provide an unexpected dividend for the United States Steel Co. Let the Fairless works be operated with the shipping facilities offered by the present 25-foot channel and avoid this tremendous Federal subsidy.

The St. Lawrence seaway project, recently approved, is to provide a channel for ore boats and oceangoing vessels of 20,000 tons. If 20,000-ton vessels are sufficient to carry cargo that will meet the requirements of that vast industrial region, it is convincingly clear that 40,000-ton ore vessels and the huge expense necessary to furnish them a channel, is not necessary to the successful expansion of the Delaware River Valley. This channel might be a luxury but never a necessity.

This phase of the project needs careful consideration and we recommend thoughtful study of the attached report of Dr. Thurlow C. Nelson, pages 5 through 10 particularly.

No. 4, damage to seawalls: The rights of those individuals, industries, and municipalities owning riverfront property along the Delaware River has scant protection in the plans for the dredging of the 40-foot channel. The Army engineers hold the Federal Government free from any claim for possible damage to seawalls. The States of Pennsylvania and New Jersey disclaim any responsibility for damage to seawalls. These facts therefore place an unfair responsibility on private individuals, industries and small towns who are not prepared for such unfair responsibility. If this Federal project can justly be found to be of benefit to the national economy the burden of protection to unbenefited victims should be a part of the cost of the project.

CONCLUSION

In light of the foregoing testimony the Delaware River Valley Association vigorously urges the members of the Senate Public Works Committee not to take any action on this project (Senate bill 2317). This huge Federal expense is unwarranted and adds to the Federal debt a sum of money that cannot be soundly justified. We urge that this bill be defeated by your committee.

Mayor GEORGE T. BECTON, *President.*
Dr. HAROLD WINKELSPECHT,
G. ELLIOTT KRUSEN,
RAYMOND SUTPHIN,
FRANK ELDENFELD,
OTTO GRUPP,
G. HAROLD CROOKER,
Directors.

URGENT WATER SUPPLY PROBLEMS OF NEW JERSEY

Paper presented to the 38th annual meeting, New Jersey Utilities Association, Seaview Country Club, Absecon, N. J., November 20, 1953, by Thurlow C. Nelson, Ph. D., D. Sc., professor of zoology, State University of New Jersey, chairman, Water Policy and Supply Council, and biologist, division of shellfisheries, State department of conservation and economic development

Faced as you are today with a multitude of problems in furnishing public utilities in our highly congested metropolitan areas, it is altogether fitting that we should devote a portion of our time this afternoon to the subject of water. We could dwell upon the 20,000 gallons of water required to produce 1 ton of steel, or on the vast amounts of water required by our extensive chemical and pharmaceutical industries; but let us pass on to matters of more immediate importance, stopping only long enough to note that in an industry long native to New Jersey it requires more than 2,700 pounds of water to produce a single pound of cranberries.

In the fields of your endeavors accurate prediction of future needs is of first importance. How much water will be needed and when; where should it be stored; how large mains should be installed; where should they go; how long will it take to complete the project? How soon will income from sale of water be sufficient to begin amortization of the original investment over and above costs of maintenance and operation? Let it be said at once that we in New Jersey have been conservative in our planning with the result that every important water supply system in the northern part of the State found itself with little or no margin of safety during the drought of 1949, and in the dry period fortunately terminated some 3 weeks ago. As of October 1 of this year the reservoirs of our four largest systems were lower than on the same date in 1949 and they were falling more rapidly during October by reason of a demand greater by 16 million gallons per day than that of 4 years ago.

Have our water shortages since the close of the last war resulted solely from increased demand? To what extent if any have changes in the weather contributed to these deficiencies?

What do we find as to rainfall and temperature trends since the beginning of full-scale weather recording in New Jersey in 1886? Here I quote an outstanding authority in the field, the late Dr. Merrill Bernard, Chief of the United States Weather Bureau for many years.

In a report to the New Jersey section of the American Water Works Association in 1946 Dr. Bernard showed that based on accumulated departures from the normal, temperatures in New Jersey have been rising since 1920, while rainfall has shown a downward trend since 1909. Note from the slide shown herewith the high rainfall of 1903 during which occurred the 100-year flood which caused great damage in the Passaic Valley and elsewhere. Well I remember that rain, night and day, save one afternoon, for a solid week with six of us home from school during Easter vacation. Note also that although 1928 was the wettest year in the history of the Weather Bureau in New Jersey yet it made only a momentary dent in the descending curve of accumulated departures in rainfall, which reached its lowest point during the early 1930's. Then occurred the driest year of record, 1932, the second driest year, and 1 of the 4 driest years followed in rapid succession. Northern metropolitan New Jersey was spared a serious water shortage at that time only because of sharply reduced industrial consumption during the depression, and through addition of the 85 million gallons per day Wanaque supply made available in 1931.

In passing, a word regarding temperature trends also is of interest. Exceptionally hot weather experienced in recent years has intensified our water shortages, while increasing losses due to evaporation from reservoirs and greater transpiration from vegetation. Glaciers and icecaps all over the world are at their lowest resulting in a rise in ocean level in this area of approximately three-quarters of a foot. The floods of the northeast storm of November 6–7 were undoubtedly aggravated by this higher level. We can therefore expect increasing storm damage along our coast and we must prepare for it.

Climatologists tell us that few places in the world are as blessed as is New Jersey in its climate with even distribution of its copious rainfall averaging 45 inches. Because of this even distribution from month to month we in New Jersey have coasted along with a minimum of storage, depending upon our rich underground resources and relatively uniform streamflow for water supply. Since 1930, however, we find increasingly uneven distribution with cloudbursts

separated by extended periods of little or no rain. In the final report of the State water policy commission in 1945 our lack of storage is emphasized; at that time metropolitan Boston with fewer people and fewer industries had 8 times as much water in storage as in northern New Jersey. New York City with 2½ times as many people but fewer industries would have on completion of the Delaware project more than 9½ times as much water in its reservoirs. Even with this apparent reserve the city is asking the Supreme Court to increase its diversion from the Delaware River from the 440 million gallons per day permitted under the Court decree of 1931 to 800 million gallons per day.

Since the beginning of the last war the northern and southern metropolitan areas of our State have witnessed an unprecedented growth in new industry and in new housing. The six northeastern industrial counties of Bergen, Essex, Hudson, Middlesex, Passaic, and Union have increased their total daily water consumption from an average of 270 million gallons per day in 1941 to 405 million gallons per day in 1953. The estimated safe dependable yield for this area is but 415 million gallons per day.

Hardly a week passes but some existing large industry announces plans for substantial expansion. Meanwhile destruction of natural storage areas such as swamps and woodlands and covering the land with additional houses, sidewalks, highways, and other barriers to penetration of rain into the earth, have decreased the natural recharge of our only sources of water supply. Washing machines, automatic dishwashers, garbage-disposal units, and home air conditioning all place new burdens on the water supply. Mains which were adequate a decade ago have been extended to such limits that many are now unable to carry the water required to outlying districts. Municipalities and private water companies faced with the prospect of tearing up paved streets for installation of larger mains have sought the cheaper expedient of additional standpipes filled during hours of minimum demand, or of sinking additional wells to feed into the mains at points of greatest need.

Recognizing that ground-water levels were falling dangerously low in our more congested areas the legislature in 1947 conferred upon the division of water policy and supply authority to delineate as protected areas those regions where diversions of subsurface water exceeded or threatened to exceed the natural recharge, or threatened to render them unfit for use by the intrusion of salt water or from other causes. Present users are permitted to continue to draw the full capacity of the equipment in place as of the date of delineation, but no new well designed to withdraw in excess of 100,000 gallons per day may be sunk without a permit for the drilling, and an additional permit for the diversion, to be granted only after public hearing. No increase in existing pumping equipment may be made beyond the 100,000 gallons per day limit without public hearing. Acting under this authority five protected areas have been delineated, including the Atlantic City region where we are now gathered.

New Jersey is fortunate in having this control over subsurface water supplies since some 65 percent of the water supply systems in the northern metropolitan area depend upon wells. In addition, there are hundreds of private industrial wells, some of substantial size which furnish the finest quality of pure water and at the low temperatures required by many industries. Since all diverters at the time of delineation are entitled to draw up to the full capacity of the equipment in place as of the date of delineation, it follows that a plant on continuous operation 7 days and nights a week could under the law draw more than 4 times as much water as a plant with identical equipment on an 8-hour shift. In addition it must be recognized that many factories are not now pumping to the capacity of their equipment. The margin between amounts pumped and the maximum allowed, plus the much larger amounts possible under longer working hours constitute in essence so many uncashed checks issued against the underground water reserves of the State. Should business boom or greatly increased defense demands result in a substantial increase in pumping hours, it is possible that in some areas the State might be forced to cash these outstanding checks on the basis of 3 or even 2 quarts to the gallon.

We are gathered today within sight of one of the world's great playgrounds and perhaps the leading convention city of the world. A real factor in the success of the Atlantic City area is undoubtedly the high quality potable water drawn from the 800-foot wells which lie beneath the city. When first drilled these wells were artesian flowing to a height of 14 feet above mean sea level. Now the static water level is some 72 feet below sea level, but as yet the sea has not broken through to salt up the priceless water-bearing horizon. Each year the record in our recording well shows levels from 1 to 3 feet lower than

the year before. Such drop in static level means but one thing; water is being withdrawn more rapidly than it is entering the area of recharge. In an excellent report by our hydrologic geologist, Mr. Henry Barksdale, it was pointed out in 1936 that somewhere off Atlantic City under the bed of the ocean and between the shore and the edge of the Continental Shelf a tongue of sea water is advancing up the dip of the stratum and must eventually reach and destroy these wells upon which the hotels and the city so largely depend.

Additional supply formerly was drawn from wells in the 100- and 200-foot sands, but these went salt during the dry weather of the 1930's. A small supply of good water is obtained from Absecon Creek, but like all cedar swamp streams the water is highly colored. For the future protection of this area which brings so many people and such large sums of money from outside the State, it is imperative that ample provision be made now for alternate upstream sources of water for Atlantic City. No one knows when the salt water will arrive, but its advent is inevitable.

A fact recognized by but few of our people is that second only to Rhode Island, New Jersey has the longest coastline relative to total area of any maritime State in the union. Because of ease of receiving oil and other raw materials by ship and the economy of marketing finished projects via the same route, the great bulk of our industry lies on, or adjacent to, tidewater. From the New York State line on the north to Paulsboro on the Delaware River on the south our State is surrounded by salt water. Hundreds of wells have been sunk by industries and by water companies and municipalities along this extended coastline. As long as natural recharge equaled or excelled the diversions of water all went well, but with the dry years of the early 1930's trouble commenced, and it is now with us as a permanent hazard to further development of subsurface supplies in most of our coastal areas.

Three of our largest industries in the lower Raritan Valley, Du Pont, Hercules Powder, and National Lead, formerly withdrew some 17 million gallons per day from a well field adjacent to the Washington Canal at its confluence with the Raritan at Sayreville. During periods of extreme low flow in the river salt water ascended to Sayreville in sufficient concentration so that weakfish or sea trout were actually caught at this point. At the request of industries desiring better shipping facilities the Army engineers dredged down the bed of the Washington Canal by 2 feet. This removal of the silt seal in the bed of the canal, together with overpumping of the well field, resulted in intrusion of so much salt water as to force virtual abandonment of this most valuable source of water supply. Some of the world's finest plastic was credited to the excellent quality and low temperature of the water from this well field. A new supply was subsequently developed in the Duhernal system through a dam on the South River with numerous wells adjacent to the reservoir.

The major hazard of salt water intrusion now facing our State is in the lower Delaware River area. Here lies one of the great water-bearing strata of the entire world, the Raritan formation, which outcropping in the northeastern portion of New Jersey, strikes to the west and south passing beneath the Delaware River at a depth of approximately 140 feet. From this rich aquifer the city of Camden alone has been drawing in excess of 22 million gallons per day while numerous industries in Camden County southward have private wells in the same stratum. Chief among these is the recently constructed well field of the Texas Co. at Eagle Point in West Deptford township, Gloucester County, from which a diversion of 3.5 million gallons per day has been authorized. Preliminary studies indicated that when pumped at the maximum permitted, this diversion might cause depression of well levels in the Philadelphia Navy Yard of from 10 to 15 feet, which illustrates the porous nature of the Raritan stratum in this area and its interstate location.

Which leads us to a consideration of the possible danger to this priceless aquifer should the Army engineers proceed with their plan to dredge the bed of the river to provide a 40-foot channel to the United States Steel plant in Morrisville, Pa. Removal of 15 feet or more of the river bottom will be required, resulting in increased percolation of river water into underlying strata. An intensive study has been in progress since early last summer to determine the probable degree of such intrusion of river water into wells in the Camden area, the results of which have not yet been made public. These results will certainly add to our knowledge of the present extent of percolation of river water into wells in this area, and the possibility of increasing recharge from the Delaware River as underground diversions increase. Cooperative studies under the Incodel program have, however, been in progress in Pennsylvania and in New

Jersey since 1948 under the able direction of Mr. Henry C. Barksdale, of New Jersey, and Dr. Jack B. Graham, of Pennsylvania. Both are ground water experts of the United States Geological Survey assigned to the respective States under the cooperative 50–50 arrangement between the Federal Government and the States which has over the years yielded information of utmost value in conservation of our water supplies. An excellent and most informative report of 19 typewritten pages was presented by Mr. Barksdale and Dr. Graham at the meeting of Incodel in September 1952. Herein are emphasized the dangers to our underground water supply which will follow increased percolation from the river and reduced flows following greater diversions out of the river valley for water supply.

The Army engineers insist that tests made of their Delaware River model at Vicksburg show no increased likelihood of salt intrusion resulting from the deeper channel. Against this, however, the following important facts must be stated:

(1) Deepening of the channel below Philadelphia resulted in increased salinity in the Marcus Hook area.

(2) No tests have been run on the model to test exceptional conditions such as the storm tide of the November 25, 1950, hurricane. High tide that morning was 5 feet above normal at Cape May, this excess depth being carried all the way to Philadelphia. This extra 5 feet of water was full strength sea water out of the Atlantic; hence salinities from Marcus Hook to Philadelphia that morning must have been far above those normally observed.

(3) The tests at Vicksburg involved only deepening of the model by a proportional amount. No study was made of the effects of removal of the seal of silt and clay in the bottom of the river. It must be recalled here that removal of but 2 feet from the bed of the Washington Canal was quickly followed by silting up the well field at Sayreville as described above.

(4) Most important of all is the fact that falling well levels in the Camden area indicate that withdrawal of water is already exceeding natural recharge. Consequently cones of influence of wells will extend farther out beneath the river. The high purity of Camden's present supply shows that very little recharge can be taking place now from the river in the Camden area. Removal of 15 feet of river bottom here will reduce the friction to passage downward from the river with resulting increased percolation of polluted water into the underlying aquifer.

We must fairly face the fact that the lower Delaware Valley is now expanding industrially at a greatly accelerated pace. The water needs of the next 25 years will be far in excess of those of the past quarter of a century. Dare we gamble on the future of this great area in the face of known facts and with only the tests on the engineer's model as a guide? The division of water policy and supply has taken a firm stand against this proposal. Speaking now as an individual, I shall continue to insist upon the following:

(1) No disturbance of the river bottom in the Camden-Philadelphia area until completion of sewage disposal works in these two great cities results in great improvement in the quality of the river water.

(2) That the Army engineers obey the mandate of the Congress which by joint resolution instructed them to study impounding sites on the upper river to the end that substantial storage may be established there to drive back salt intrusion in case of unusual drought or of failure of the model tests accurately to predict what will actually happen in the event of channel deepening.

Enough has been said regarding our water needs to indicate need for speedy action. What actually has been accomplished since the onset of the very dry weather of the 1930's toward increasing our water supplies or in conserving existing ones?

(1) With the aid of an interconnection revolving fund of $300,000 interconnection of all major supplies in the northern and southern metropolitan areas was completed in advance of the marked increase in consumption of the war and postwar periods. A pumping station capable of transferring up to 25 million gallon per day was constructed at the interconnection of the Jersey City and the Wanaque aqueducts.

(2) Metering of all individual services was completed in northern New Jersey, while metering of the city of Camden has been to a large extent accomplished.

(3) The Delaware and Raritan Canal has been rehabilitated and is now furnishing some 30 million gallons per day of industrial and potable water.

(4) The North Jersey District Supply Commission has completed the Ramapo project which will add an average of 25 million gallons per day to the yield of Wanaque Reservoir.

(5) The completion of Split Rock Reservoir and the addition of flash boards to the Boonton Reservoir gives Jersey City adequate supply for the present but will not care for future needs in periods of extended drought.

With the assistance rendered by the above we have barely slipped by during recent dry periods. With our ever-increasing needs, however, we must begin, without further delay, to provide for at least the 25-percent reserve which experienced waterworks men consider the minimum for safety. The Joint Operation Board consisting of the operators of our largest water-supply systems recommended in October 1950 that a new major water supply will be urgently needed in northern New Jersey by 1965 to furnish not less than 100 million gallons per day. Even now some forward-looking and experienced waterworks men are urging that this be increased to 150 million gallons per day.

The report of the water supply committee of the New Jersey section of the American Water Works Association in its report to the section in Atlantic City October 23 of this year forcefully recommended legislation this winter to make possible acquiring at least one reservoir site in northern New Jersey and another in southern New Jersey. The only available site in the southern area encloses the Batsto and Wading Rivers in the Mullica watershed. This is now being threatened by the efforts of the United States Air Force to build a bomber base in the Wharton tract. The Round Valley site in northern New Jersey recommended in the 1945 report of the State water policy commission is threatened by possible quarry operations on Cushetunk Mountain. We have no time to lose; we are building up very rapidly; few possible reservoir sites are left.

Finally, a few words to emphasize the urgent need for planning in the future development of our State. The great pines area of central southern New Jersey is a potential source of water of priceless value. Here penetration of rainfall approaches 100 percent; hence south Jersey streams do not show the marked fluctuations exhibited by those in the northern half of the State. A comparison of the yields of water from comparable watersheds on the Great Egg Harbor River fed by cedar swamps and the Neshanic, a tributary of the Raritan, fed by springs and runoff from steep rocky slopes, illustrates this difference very strikingly. This study made by Mr. Ben F. Furman, engineer of the division of water policy and supply, shows for the Great Egg Harbor a maximum flow during a 2 months' wet period of but 9 times the minimum occurring in a 2 months' dry period. For the Neshanic during these same 2 periods the maximum is 1,080 times the minimum.

Here in the wilds of central southern New Jersey lies the greatest potential water supply of the State, enough to supply this area for at least another century. To preserve it from pollution or improper development, it is imperative that long scale planning be adopted. Industry and any other sources of pollution should be kept out of the area, with the water as needed piped to the coast. One of the most important steps to be taken in the immediate future is the acquisition of the Wharton tract, setting it aside for recreation until needed for water supply.

Conservation of water throughout the remainder of the State should place chief emphasis upon control of soil erosion and the prevention of disastrous floods. One recent flood on the Raritan River rushed past our gaging station at Bound Brook in quantities sufficient to have filled Wanaque Reservoir, the largest in the State, in less than 2 days starting with a dry basin. The accompanying Kodachrome shows this flood passing the Fieldville Dam below Bound Brook, bearing in suspension hundreds of tons of the remaining precious top soil of the Millstone and Raritan Valleys.

Without entering into the controversy between Secretary Benson and the Soil Conservation Service, I would, however, ask the Secretary one question: Will the changes just initiated by you increase the speed and the effectiveness with which soil conservation will be conducted in future? Unless the answer is unqualifiedly in the affirmative, then no other reason can be given much weight. With the world food situation what it is, with New Jersey's water supply situation what it is, soil conservation must go ahead at a sharply accelerated pace. People look askance at the $100 million required by a new major supply, while voting overwhelmingly for highway systems costing three to four times as much. Do you yourselves realize that the best potable water in New Jersey costs only one-tenth as much as dirt? Dirt which you must truck in to your place at further expense is 10 times more expensive than the best potable water flowing at the turn of a tap in your homes for 5 cents a ton!

The Bible tells that: "Where there is no vision the people perish." Every advance in our knowledge of former civilizations points unmistakably to lack

of sufficient water as a contributing cause of the decline. You who have done so much to furnish our great State with the utilities which are its lifeblood are in a strategic position to demand the necessary action to secure for the future adequate supplies of the one utility, water, without which all others must ultimately be of no avail.

Senator BUSH. Now, will you give us briefly the reasons for your opposition to this bill.

Dr. WINKELSPECHT. In the statement—I will just refer to a part of it—there are four chief reasons, and I could elaborate; I could spend an hour's time here.

Senator BUSH. No; you can't do that. I am sorry.

Dr. WINKELSPECHT. I will try to go through it as fast as I can.

We feel the 25-foot channel we have is adequate for the present and the future needs of all the industries.

Right now we have boats going up to the Fairless Steel works. Large oceangoing vessels go up the river. I see 3 and 4 every day go past my house. They go up there, travel good and fast, and without the aid of a tug in the present channel.

Up until the time this channel was cleaned out, we only had the original 25-foot channel, which was supposed to make Trenton a seaport. It never made a seaport out of Trenton. There was so little traffic on the river it was allowed to shoal water at 17 feet, and our committee was one of those in favor of restoring the channel to 25 feet. In other words, if United States Steel built their plant there, expecting 25 feet, they had a right to have it.

Senator BUSH. May I ask you a question?

Is the opposition of your group primarily based on a fear that the recreational or beauty values of the river might be affected adversely by the proposed development?

Dr. WINKELSPECHT. No.

Senator BUSH. That is not it?

Dr. WINKELSPECHT. No; that is not the chief objection.

Senator BUSH. It is a question of health involved?

Dr. WINKELSPECHT. No; no.

Senator BUSH. Is there any social question involved?

Dr. WINKELSPECHT. No.

We are near enough to the problem to see it a little better than other people. Testimony down here is a little misleading, but if you live in that area and see things as we see them, there is a little different light thrown on this thing.

Most of the people who are in favor of it are in favor of it because they are going to make some money out of real estate. They are going to make some money one way or another, and we are the people who live in this area, who should have a right to be heard on what happens in our area.

I tell you right now if this were put up to a vote on the ballot in the communities in this area, whether the channel should be built or not be built, it would be defeated, overwhelmingly defeated. There is no question about it.

Senator BUSH. Of course, you realize, Doctor, we have a telegram from the Governor of New Jersey, and have heard from the Senators from Pennsylvania, the Governor of Pennsylvania, and the Congressmen in that area, all of whom take an opposite view from the sentiment of your groups.

Dr. WINKELSPECHT. Well, it seems when a boom starts like this, big companies speak; everybody wants to get on the bandwagon and be one of the good fellows, and we feel it is not justified.

Just to show you, just the testimony that I have heard in the last hour leads you to believe that this channel is going to do something for the port of Philadelphia. The port of Philadelphia has authorized a channel 40 feet up to Allegheny Avenue. That is the upper part.

Mr. LA BRUM. No; that is wrong.

Mr. SCHAD. That is wrong.

Mr. LABRUM. You want to study your statistics.

Dr. WINKELSPECHT. Now, wait——

Mr. LABRUM. That is not correct.

Senator BUSH. Now, the committee would like to have order here, and let the gentleman proceed, and if anyone wants to refute testimony or comment on it, we would like it to be in order.

Dr. WINKELSPECHT. Understand, I didn't say you have a 40-foot channel up to Allegheny. I said you have an authorized 40-foot channel and that has been allowed to shoal over, and that you just had recently an appropriation that in the next 2 years is going to restore that to 40 feet. Now, maybe it is 38, something like that, but this channel we are talking about—this bill is not for a channel in the city of Philadelphia, or from Allegheny Avenue down—and, incidentally, our committee is in favor of restoring that channel in the Philadelphia area to its proper depth for the sake of Philadelphia. We are definitely in favor of that, and we have written our Congressmen and Senators in that respect, but this channel is from Allegheny Avenue up the Delaware River.

You know a river starting at the delta, going to its source, naturally gets smaller, and as the topography of the river changes, the channel naturally gets smaller and we feel that 40 feet from the sea up to Philadelphia—then it goes from Allegheny Avenue up to Delair, I think at 28 feet; from Delair up to the Fairless steelworks, 25 feet; then it goes to Trenton, I think at the present, at 18 feet. Then it stops. Above Trenton there is no navigation on this river.

In other words, the interests in favor of it want us to build a channel that is more than what you should have in a river so small, where the river gets to its source. The channel of every river tapers off as you go up the river. This is going to go up to 40 feet and, bingo, it stops.

Senator BUSH. What is the objection to that?

Dr. WINKELSPECHT. Well, the objection is that it is not a natural thing and, for one thing, it is eventually going to lead to the destruction of the banks of the river.

Now, we talk about United States Steel donating some money toward the channel. Here is what we, the people who live there, who will get absolutely no benefit, are asked to do. We are asked to furnish free disposal areas, and we are also asked to assume the liability for any subsequential damage to the building of the channel.

Now, any immediate damage, of course, will be paid for by the Army engineers, but any subsequential damage, such as the loss of the walls on our banks and the erosion that takes place from the washing of boats and for putting such a big channel in such a small river, we are asked to assume liability for that.

I would think United States Steel would be willing to pay their half of this part over 35 feet, but I have heard they don't want to pay that. That is no more than to be expected if the thing is to be built, and we don't think it should be built at all.

At present the boats are moving up to the steelworks. The steelworks is operating at very near a 100 percent capacity.

They built the steel plant there, without the channel, knowing that the channel was 25 feet, or would be 25 feet, and now they are asking for a 40-foot channel, which is just like a person asking for a big concrete highway to be built into the woods to their house; and, gentlemen, they are the only ones who will use the channel, and from the information I have and evidence we can show you, if they want to have super ore carriers like is planned, a 40-foot channel will not be adequate. It is only a question of time when they are going to ask for a 50-foot channel.

Now, that takes in one phase of it.

The second phase is that it is just a subsidy for United States Steel, and I think the people in the country are all tired of subsidies, and in this period when the country is in debt—we have a bigger debt than we should have; we would like to have taxes reduced and to have a subsidy just for one company, a hundred-million-dollar subsidy for construction, plus close to five million for the amortization and maintenance of it, I think is going just too far for one company—and there is only one company; there is no other company who expects to bring these larger boats up.

Now, the gentlemen preceding me said something about Burlington being a port. The only thing that pulls into Burlington are launches. They don't even use the 25-foot channel. The boats that come in there could get by with a 12-foot channel. So, the 25-foot channel is adequate.

We have the public service plant located in Burlington. They bring in barges with coal, barges with oil, and they would like to see the channel because they like to help out United States Steel. They sell them power, but they admit they will not use the 40-foot channel and that the 25-foot channel is adequate for any vessel that they bring in now or may bring in in the future.

Senator BUSH. Your general objection is (*a*) it is a subsidy which is unwarranted and (*b*) that it presents a nuisance value and makes an expense to the people who live on the banks of the river?

Dr. WINKELSPECHT. That is right.

Senator BUSH. Is that right?

Dr. WINKELSPECHT. Definitely, and there is no provision in the bill to protect those people.

If my seawall, which has been tipped over by the tremendous channel—if that falls over, I have no one to file a claim with. No one will assume the liability for that. I am told the engineers will assume no liability; the Federal Government will assume no liability, and the State will assume no liability; likewise, the county nor the township will assume no liability there at all, if this thing is put in.

I just a few minutes ago heard that spoilage will not be placed anywhere we do not want it. For the benefit of the gentleman who said that—he was from the United States Army—I want to tell him right now when the 25-foot channel was put in, a muddy island was

placed in front of my house, and it is still there, a muddy island right out in the middle of the river, and it is an unsightly mess; and I know exactly—I can predict right now—what is going to happen. When they start to dig this out, there is going to be so much spoilage—there are not enough areas to absorb this spoilage; there are not enough meadows to absorb it, and it is going to be necessary to dump it on the shoreline, and my prediction is—and you remember these words—that some day we will have this stuff dumped right on the shoreline in front of our homes.

I can see it coming, because when this thing starts—it is a hundred-million-dollar project, and if there is no other place to dump the soil, and the thing has got to go through, it is going to be dumped somewhere and it is going to be dumped right on our shoreline, and they can do that without the permission of the owner. The owner has no redress. You just have to sit there and watch your real estate go to pot, just so that one company can save a few cents on a ton of steel, and they can produce steel in this plant now very cheaply.

Another point I would like to bring out is on these figures showing how they are going to save money, the ratio of saving to the cost of this project. In that is figured blending of ore at the Fairless plant for other plants of the steel company.

Why is it necessary to bring ore all the way up the Delaware River to the upper reaches of the Delaware River to blend it in order to ship it to a Pittsburgh steel plant?

Why can't that ore be unloaded at Philadelphia where we already have a 40-foot channel and the Pennsylvania Railroad is building a large dock to handle things like that down there?

Now, I feel these figures are padded. They show how the money could be saved by bringing up to Fairless and blending and then shipping to Pittsburgh or some other steel plant; but I don't think they will put that into practice even after the channel is built. I still think they will blend it down below, down at Philadelphia. That is the logical thing to do—definitely logical.

Senator BUSH. Doctor, may I ask you a question?

Your card shows you are a Doctor Winkelspecht. Is that a medical degree or——

Dr. WINKELSPECHT. No; I am a D. D. S., a dentist.

Senator BUSH. I see.

Dr. WINKELSPECHT. And I am interested purely as a citizen.

Senator BUSH. Yes.

Dr. WINKELSPECHT. And this group paid my way down here. We don't have a whole lot of money.

Senator BUSH. Yes. I am sure the committee is very, very greatful to you for coming, and I have extended your time, because you were the only witness who has appeared in opposition to the bill.

Would you mind yielding for a moment so that I can ask the engineers if they would care to comment on what you said about this?

Dr. WINKELSPECHT. Surely.

Senator BUSH. Would you object to that?

Dr. WINKELSPECHT. No.

Senator BUSH. You be seated right there.

Colonel Milne, the gentleman has raised a couple of very interesting points, as you have heard, especially regarding the property on the banks of the river there. Would you care to comment on that?

Colonel MILNE. Yes, sir, Mr. Chairman.

We did give detailed consideration to the possibility of the banks sliding into the river as a result of the deepening of the channel, particularly between Philadelphia and Trenton.

On the basis of our best engineering knowledge, accumulated over a number of years of experience in this type of work, we came to the conclusion that there are two possible areas that might have bank slippage. Those areas are Bristol and Florence Heights. We consider them possibilities, but extremely remote possibilities. However, because there is that possibility we have included within the cost estimate approximately a million dollars to take care of any necessary bank revetment in those areas where possible bank slippage may occur.

Now, in regard to the doctor's other statement on disposal areas, one of the requirements of the local cooperation is that local interests furnish these necessary spoil-disposal areas. We accept the areas from them, without regard to where they are, with this one condition: The areas must be in close proximity to where we are dredging the material; but it is up to local interests to give us those areas, and I would presume those areas would be either lands that they owned outright or lands that they could purchase.

Senator BUSH. You buy that land from them, under the bill?

Colonel MILNE. No; we do not, sir. It is their responsibility to give us the land.

Senator BUSH. Thank you very much, sir.

Now, Doctor, we will give you a couple of minutes more, if you would care to conclude your story on this.

Dr. WINKELSPECHT. Well, you notice what the Colonel has to say. The two communities that are right close to it are going to be protected, but there are other communities besides those communities.

And then about the spoilage: He didn't explain about this island that I still have in front of my house that was placed there before when the 25-foot channel was put in.

Senator BUSH. Would you be willing to make a present of that to the United States?

Dr. WINKLESPECHT. I would.

We had named that Colonel Cruz Island, because he was the fellow that had something to do with it there. We named it after him. I don't know what we are going to name the next one, but that has been an eyesore.

What it does: It is a funny thing, but the rivers and the ocean, too, either place soil in your area or take it away, depending on the flow.

You would think the island in front of my place would stop the walls or the shoreline from receding, but it doesn't. Before the island was put there, the natural current kept pushing things up on the banks. I have been in Delanco all my life. When I was a boy, I could stand on the shore and that bank that was there came up to about here on me. It was a cinch to stand there. Now the wall is up to here, and in the meantime I have grown a little bit, too. So, I can't get as close to it as I used to, and that is gradually being eaten away.

I did have some pictures, which I failed to bring along, showing where the wall is broken out in places, and I have already protected the walls.

Senator BUSH. If you care to send the pictures, we will be glad to consider them when we meet to consider this bill.

Dr. WINKELSPECHT. I will be glad to do that.

Senator BUSH. Doctor, I want to compliment you on your very good-tempered and enlightening presentation in regard to this bill. We are very glad to hear you and very glad you were able to get here.

Dr. WINKELSPECHT. Thank you. Any of this legislation that is considered—we would like to be notified and have our views put in the thing.

I have a lot of other things here that I probably could give you, but I don't want to take up your time.

Senator BUSH. If you have anything in addition, in writing, that you——

Dr. WINKELSPECHT. No. These were just little notes.

Senator BUSH. Yes.

Dr. WINKELSPECHT. There are a lot of other ramifications, such as the damage to the underground water. We know Sheppard Powell has made a report and we know they say it is not going to spoil the underground water, but in our area, South Jersey, we have the largest underground supply of pure water, supplying the greatest number of people of any area in the United States.

Now, when we first told the Army Engineers this, at our first hearing in Trenton, they said, "No; you don't have pure water. You can't drink that water as it comes out of the ground."

But we do. Our water companies—50 percent take that water just as it comes out of the ground and the other 50 percent add chlorine purely as a precaution, not because it needs it.

Now, Philadelphia is already drinking river water, and they don't have the natural water supply on that side of the river we do.

Our water table used to be 14 feet below the surface. Now, because industry is using a lot of it, it has dropped to 75 feet, and that causes a greater pressure on the salt water in the ocean and any impurities in the ocean to try to get into those wells, and eventually, as Dr. Nelson's paper tells you, the paper I have filed, we are probably going to have salt water underground, whether we do or don't have a channel, but this channel is just one other thing to add to that and spoil this very good water supply that we have, and we feel very definitely is going to harm our water supply.

Senator BUSH. Thank you very much.

Dr. WINKELSPECHT. Thank you.

Senator BUSH. Senator Martin, I think we have heard all the witnesses. Do you care to make any further comments?

The CHAIRMAN. No; I believe not.

Senator BUSH. Would you care to make your statement now?

STATEMENT OF JOSEPH W. LEVY, COUNSEL TO HON. ROBERT G. HENDRICKSON, UNITED STATES SENATOR FROM THE STATE OF NEW JERSEY

Mr. LEVY. I am Joseph W. Levy, counsel to Senator Hendrickson.

Senator Hendrickson asked me to be here this morning because he is otherwise engaged in a meeting with the committee on the Judiciary, and he asked me to say he joins with Senator Martin and

his other colleagues from Pennsylvania and New Jersey in favor of this legislation.

Senator BUSH. Thank you very much.

Mr. LaBrum.

Mr. LABRUM. Just before closing, I would like to offer to the committee first a brochure entitled "The Delaware River Ports—Their Economic and Military Importance to the Nation," which gives a complete description, and I will see that you get 20 copies of this. I only have this one with me.

Senator BUSH. Thank you. The committee will receive that for its files.

Mr. LABRUM. And I would like to have Mr. Schad identify another brochure called The Delaware River International Highway. While some of it is not relevant to this issue, there are many material facts in here that might be of aid to the committee.

Will you offer that, Harry?

And then I want to close with just a statement of a poll that was taken with respect to this matter.

Senator BUSH. Mr. Schad.

Mr. SCHAD. Mr. Chairman, this brief was prepared and presented to the Senate Appropriations Committee in connection with the reach of the Delaware River Channel from Philadelphia to the sea. While it deals with the lower reaches of the river, it does contain many facts, much data that would be analagous to the problem of the upper river and which your committee may find useful in its consideration of the upper-river project.

Senator BUSH. Thank you very much, sir.

Mr. LABRUM. Mr. Chairman, through an inadvertence, Mr. Guerin, who is from Burlington County, has a statement he would like to offer in evidence, if he may.

Senator BUSH. What is the name, please?

STATEMENT OF THOMAS E. GUERIN, SECRETARY, BURLINGTON COUNTY CHAMBERS OF COMMERCE

Mr. GUERIN. Thomas E. Guerin, from Moorestown, in Burlington County, and I may just state I represent the chambers of commerce of Burlington County, which is a group of seven chambers and businessmen's groups who have gone together in this one organization for the general county benefit, and I am speaking for perhaps seven to eight hundred businessmen in that area who are entirely in accord with this bill.

Senator BUSH. Do you wish this statement filed in the record?

Mr. GUERIN. I wish that it be filed.

Senator BUSH. Thank you very much. It is now so ordered.

(The statement submitted by Mr. Guerin is as follows:)

THE CHAMBERS OF COMMERCE OF BURLINGTON COUNTY, NEW JERSEY,
Moorestown, N. J., May 10, 1954.

PUBLIC WORKS COMMITTEE,
United States Senate, Washington, D. C.

Gentlemen: The Chambers of Commerce of Burlington County, in cooperation with the Greater Philadelphia-Delaware-South Jersey Council, last week held a conference on planning and economic development of Burlington County, N. J. It was the unanimous opinion of authoritative speakers who addressed this conference that the industrial future of Burlington County is inexorably linked

to the deepening of the Delaware River channel to Trenton, providing ready access to Burlington and other river points by oceangoing vessels. The conference supported this view.

Burlington County, the city of Burlington, and other communities in this area have pooled their resources to develop a comprehensive study of the available industrial sites in this important part of Delaware Valley. The results of this study, conducted by the Urban Research Bureau of Princeton University, indicate that this area, perhaps above all others, offers more advantages to the location of new industry, in terms of available land, transportation, industrial water, utilities, and other important considerations.

Accordingly, the Chambers of Commerce of Burlington County, the chosen freeholders of the county, and other civic interests are preparing to join in a mutual program to attract new industry to our county, to plan, zone, and otherwise prepare the way in order that industry will find it attractive to locate here and become an integral part of our community.

The deepening of the Delaware River channel to 40 feet from Philadelphia to Newbold Island and 35 feet from that point to Trenton will place this important point on a major water route to the ports of the world and will as a result attract new industry into this area which has interest in economical shipping to other domestic and foreign ports.

As a consequence, the Board of Directors of the Burlington County Chambers of Commerce desire to go on record before the Public Works Committee of the United States Senate as unanimously supporting approval of legislation authorizing the above stated depths of the Delaware River. We also suggest to the committee that, on the basis of anticipated customs returns to the Federal Government, this project becomes one of the best investments the Government can make. It is respectfully submitted that customs returns from the deeper channel of the Delaware River will, in themselves, liquidate the costs of this project over a relatively short period of years, and provide a great source of earned revenue for the Government for many years to come.

Respectfully submitted.

BURLINGTON COUNTY CHAMBERS OF COMMERCE
THOMAS E. GUERIN, *Secretary*.

Mr. LABRUM. Now, I am only going to take a second.

In a poll that was conducted in 1953 in the counties of Mercer and Burlington of New Jersey the following question was asked:

"Do you favor the report of the United States Army engineers recommending deepening the Delaware River channel to 40 feet up to the Fairless Works of United States Steel and 35 feet to the Trenton Marine Terminal?"

That was sent to approximately 28,000 people in those two counties, with the following result: yes, 89 percent; no, 11 percent.

That is the total.

Broken down into counties: Mercer: Yes, 94 percent; no 6 percent. Burlington: Yes, 84 percent; no, 16 percent.

Senator BUSH. What percentage of returns did you have on that?

Mr. LABRUM. There were approximately 4,000 returns out of 28,000 questionnaires sent out.

May I express on behalf of the group that appeared before you this morning our sincere thanks and appreciation for your kindness in handling this matter.

Thank you very much.

Dr. WINKELSPECHT. May I ask a question?

Senator BUSCH. Yes, Doctor.

Dr. WINKELSPECHT. What percentage of those ballots were taken from Mercer County and what percentage from Burlington County?

Mr. LABRUM. I would say about half, wouldn't you, Congressman?

Mr. HOWELL. I would say about half. It fell pretty much in that proportion of relationship between the two counties.

Dr. WINKELSPECHT. The ballot doesn't seem to fit in with public thinking, as we get it.

Senator BUSCH. Senator Martin, if you have no objection, we will adjourn the committee meeting.

Thank you all very much.

(Whereupon, at 12:05 p. m., the hearing was adjourned.)

(Additional statements received are as follows:)

EXECUTIVE OFFICE OF THE PRESIDENT,
BUREAU OF THE BUDGET,
Washington 25, D. C., April 12, 1954.

Hon. EDWARD MARTIN,
Chairman, Committee on Public Works, United States Senate,
412 Senate Office Building, Washington, D. C.

MY DEAR Mr. CHAIRMAN: This is in reply to your letter of July 9, 1953, requesting the views of this office with respect to S. 2317, a bill authorizing the modification of the existing project for navigation on the Delaware River, Pennsylvania, New Jersey, and Delaware.

The purpose of the bill is to authorize modification of the existing projects for the Delaware River to provide essentially for a channel with a minimum depth of 40 feet and a minimum width of 400 feet from the Philadelphia Naval Base to the upstream end of Newbold Island, thence a depth of 35 feet and a minimum width of 300 feet to the Trenton Marine Terminal.

The Bureau of the Budget advised the Secretary of the Army by letter of February 25, 1954 (copy of which is enclosed), that since all the available evidence indicates that the use of depths greater than 35 feet now or in the foreseeable future will be confined to the United States Steel Corp., we believe that no exception should be made to the long-established principle and practice in such cases of local participation in the costs. We, therefore, concur in the recommendation of the Chief of Engineers that local interests contribute in cash to the United States one-half of the actual additional cost of construction of the 40-foot channel in excess of the cost of a 35-foot channel.

Furthermore, the Bureau of the Budget believes that the 40-foot channel is the only satisfactory solution to the problem of providing adequate navigational facilities for the shipping which serves the United States Steel Corp. plant at Newbold Island.

Accordingly, the Bureau of the Budget would have no objection to authorization of the project modification provided that a cash contribution from local interests is required in the amount of one-half of the actual additional cost of construction of the 40-foot channel in excess of the cost of a 35-foot channel as recommended in the report of the Chief of Engineers.

In connection with the committee's consideration of this bill, the Bureau of the Budget wishes also to question whether, except in emergencies or rare instances of very large multiple purpose projects, single project bills should be favorably considered. The Congress is now considering a general river and harbor and flood control bill. The Bureau, therefore, recommends that the merits of this project be weighed in relation to other projects being considered for inclusion in the general bill. We believe this will provide a more balanced program than piecemeal action on individual bills.

Sincerely yours,

(Signed) ROWLAND HUGHES,
Deputy Director.

EXECUTIVE OFFICE OF THE PRESIDENT,
BUREAU OF THE BUDGET,
Washington 25, D. C., February 25, 1954.

The Honorable the SECRETARY OF THE ARMY:

MY DEAR MR. SECRETARY: This will acknowledge receipt of Under Secretary Johnson's letter of December 16, 1953, submitting the proposed report of the Chief of Engineers on the Delaware River between Philadelphia, Pa., and Trenton, N. J., and the Delaware River from Philadelphia to the sea, requested by resolutions of the Committee on Public Works of the United States Senate, adopted April 13, 1950, and the Committee on Public Works of the House of Representatives, adopted May 21, 1951, and authorized by the River and Harbor Act approved July 24, 1946.

The Chief of Engineers recommends, subject to certain conditions of local cooperation, modification of the existing projects for the above-named waterways to provide essentially for a channel with a minimum depth of 40 feet and a minimum width of 400 feet from the Philadelphia Naval Base to the upstream end of Newbold Island, thence a depth of 35 feet and a minimum width of 300 feet to the Trenton Marine Terminal, with suitable widening of the bends, enlargement of the turning basin at Trenton, reconstruction of the Pennsylvania Railroad bridge at Delair, N. J., and protection of the river banks.

The Federal cost of the recommended improvement, based on 1951 price levels, is estimated at $73,389,000 for construction and $349,000 for navigation aids. The non-Federal cost is estimated at $18,647,000, including a cash contribution presently estimated at $18,000,000. The annual benefits are estimated at $8,450,000 and the annual charges at $4,370,000. The resultant benefit-cost ratio is stated to be 1.93.

The Chief of Engineers presents an alternate recommendation that, if the required cash contribution approximating $18 million for the 40-foot channel is not forthcoming when Federal funds are available for initiation of construction, the authorization for increased deepening of that part of the project between Philadelphia and Newbold Island be limited to a minimum depth of 35 feet. The Federal cost of a channel with a minimum depth of 35 feet from Philadelphia to the Trenton Marine Terminal is estimated at $55 million for construction and $243,000 for navigation aids. The non-Federal cost is estimated at $47,000 for rights-of-way. The annual benefits are estimated at $4,888,000 and the annual cost at $2,807,000. The resultant benefit-cost ratio is stated to be 1.74.

It is noted that the Governors of the States of Pennsylvania and New Jersey and the president of the United States Steel Corp. have registered objections to inclusion in the report of the condition of local cooperation requiring responsible local interests to contribute in cash to the United States one-half of the actual additional cost of construction of the 40-foot channel in excess of the cost of a 35-foot channel, presently estimated at $18 million. Briefly, they believe that the existing national policy provides for improving navigable waterways at the expense of the Federal Government and that it should be adhered to in this case since, in their opinion, the benefits from the proposed 40-foot channel would be general in character and would accrue to many varied interests.

The Chief of Engineers states that all evidence indicates that the use of depths greater than 35 feet now or in the foreseeable future will be confined to the United States Steel Corp. Since sizable additional economic benefits would accrue directly to this corporation by provision of the recommended 40-foot depth, we believe that no exception should be made to the long-established principle and practice in such cases of requiring local participation in the cost and that the amount of the cash contribution proposed by the Chief of Engineers in this case is reasonable.

On the basis of information contained in the report it is apparent that the alternately proposed 35-foot channel would not adequately meet the navigational requirements of the large ore vessels which would be used to supply the United States Steel Corp. plant at Newbold Island. It appears to us that any plan which contemplates throughout the economic life of the improvement the partial unloading of these vessels at Philadelphia before proceeding to Newbold Island would prove to be a temporary, uneconomic arrangement which would ultimately have to be modified to provide for the 40-foot channel. It is apparent therefore that the 40-foot improvement is the only satisfactory solution and that it should be authorized and accomplished as a single operation in the interests of the greater transportation and construction economies involved.

It is noted that the Governor of the State of New Jersey expresses concern regarding the possible adverse effects of the recommended improvement on the ground water supply in the Camden-south Jersey area. It is also noted that further studies of this problem by private interests and appropriate Federal agencies are now underway. While the proposed recommendation of the Chief of Engineers requires that local interests shall hold and save the United States free from damages due to construction and maintenance of the improvement, we believe that this problem should be resolved insofar as practicable to the satisfaction of all concerned prior to the submission of a request for an appropriation to undertake the project, if it is authorized by the Congress.

Subject to your consideration of the above comments, you are advised that there would be no objection to the submission of the report to Congress. No commitment, however, can be made at this time as to when any estimate of appropriation would be submitted for construction of the project, if authorized by the Congress, since this would be governed by the President's budgetary objectives as determined by the then prevailing fiscal situation.

Sincerely yours,

(Signed) ROWLAND HUGHES,
Deputy Director.

MAY 27, 1954.

Hon. EDWARD MARTIN,
Chairman, Committee on Public Works,
United States Senate.

DEAR MR. CHAIRMAN: Reference is made to your request for the views of the Department of the Army with respect to S. 2317, 83d Congress, a bill "Authorizing the modification of the existing project for navigation on the Delaware River, Pennsylvania, New Jersey, and Delaware."

The Department of the Army has considered the above-mentioned bill. The purpose of the bill is to modify the existing project for Delaware River to provide for enlarging the navigation channel in accordance with a report of the Chief of Engineers. The bill refers to the report of the Chief of Engineers as being dated January 23, 1953. Actually, the report of that date is that of the Board of Engineers for Rivers and Harbors and the final report of the Chief of Engineers is dated November 18, 1953, which report was transmitted to Congress on March 19, 1954.

The report of the Chief of Engineers recommends as one condition of local cooperation that local interests contribute one-half of the incremental cost of increasing the depth of a certain portion of the channel to 40 feet rather than to 35 feet, such contribution being presently estimated at $18 million. The above-mentioned report of the River and Harbor Board of January 23, 1953, does not contain such a condition. Enactment of S. 2317 in its present form would authorize the improvements without the recommended contribution, which is believed to be a reasonable and proper condition of local cooperation. Accordingly, to make the bill consistent with the recommendation of the Chief of Engineers, it would be necessary to revise it by striking the language in section 2 on page 2, lines 8 and 9, beginning with the word "January" and inserting the following: "November 18, 1953, at an estimated cost of $73,389,000."

The report of the Chief of Engineers recommends that if the local contribution is not forthcoming when Federal funds are available for initiation of construction the authorization for increased deepening of that portion of the project referred to in the preceding paragraph shall be limited to a 35-foot draft channel. In this connection, your attention is invited to the comment of the Bureau of the Budget which accompanied the report of the Chief of Engineers that the amount of the cash contribution proposed by the Chief of Engineers is reasonable, that the 35-foot channel would not adequately meet navigational requirements, and that the 40-foot improvement is the only satisfactory solution and should be authorized and accomplished as a single operation. To make the bill consistent with the Bureau of the Budget comment it would be necessary to add at the end of section 2, the following additional wording:

": Provided, That the recommendation in the last sentence of the Chief of Engneers' report is not approved."

The Department of the Army favors the authorization of the improvement proposed in S. 2317. However, your committee may prefer to consider authorization of the work in connection with a general river and harbor and flood control bill.

The cost of the United States is estimated to be $73,389,000 for construction if the bill is revised, while the cost would be $91,389,000 under the bill as now written; the estimated annual maintenance cost is $759,600.

The Bureau of the Budget advises that there is no objection to the submission of this report.

Sincerely yours,

(Signed) ROBERT T. STEVENS,
Secretary of the Army.

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CURRY & PURNELL,
Camden 2, N. J., May 12, 1954.

SENATE PUBLIC WORKS COMMITTEE,
Room 412, Senate Office Building,
Washington, D. C.

GENTLEMEN: I represent Mr. Ralph M. Shaw, Jr. of 608 Riverbank, Beverly, N. J.

It has been called to the attention of Mr. Shaw that you are having a hearing tomorrow, Thursday, May 13, 1954 at 10 a. m. at this above-numbered office, in connection with the dredging of a proposed 40-foot channel in the Delaware River from Philadelphia to Trenton.

Mr. Shaw's property is on the riverbank at Beverly, and he believes from past experiences that such a channel will cause the banks to slip away from the front of his property on the river and thus cause damage to his property.

Mr. Shaw is not against a channel as such, but if any provision is made to dredge such a channel past his property he requests that appropriate provisions should be made by either the Federal Government or the State to save him harmless from any damage to the bank in front of his premises and if any such damage occurs, to repair such damage at the cost of the Federal Government or the State.

I will appreciate it if you will put this letter into the record so that there can be no question as to where Mr. Shaw stands on this matter.

Yours very truly,

EDWARD T. CURRY.

HOUSE OF REPRESENTATIVES,
Washington, D. C., May 13, 1954.

Hon. EDWARD MARTIN,
Chairman, Committee on Public Works,
Senate Office Building,
Washington, D. C.

DEAR SENATOR: Please extend my remarks on the Martin deeper Delaware Channel bill before the committee today to include the enclosed.

Sincerely,

KARL C. KING.

Mr. Chairman, I do not only urge the eventual passage of this bill—I urge that the action on it be as prompt as is consistent with the complete determination of the facts. Timing of this development is important, for we already have at the upper end of this channel a great industry which badly needs this greater depth for its own efficiency. This fact, of course, is not complete justification in itself, but these hearings will show that other industries are awaiting a decision on this matter, before they make location commitments. The whole development of the area between Philadelphia and Trenton is to some degree delayed by uncertainty as to the action of Congress.

The timing of this overall extension of the Philadelphia Harbor is important to our national economy. Prompt action will furnish the impetus for industrial planning and development which will promptly add to employment in wide areas of the country.

MEMORANDUM IN RE PROPOSED DEEPENING OF DELAWARE RIVER FROM TRENTON TO THE SEA

Charles J. Biddle, in propria persona and representing other residents on the Pennsylvania shore of the Delaware River, Philadelphia, Pa.

TWO DIFFERENT PROBLEMS

In considering the question of the advisability of deepening the channel of the Delaware River from Philadelphia to Trenton to a minimum depth of 40 feet and a width of 400 feet, there should be kept clearly in mind the great difference between existing conditions below Philadelphia and above. The proposed deepening of the upper river has sometimes been confused with the deepening of the lower river from Philadelphia to the sea. Below Philadelphia the existing channel is already 37 feet deep and the cost of putting it down to 40 feet (not including the cost of cleaning the channel to the authorized depth of 37 feet) is estimated at only about $4½ million. Compare this with the situation between

Philadelphia and Trenton where the existing channel is 25 feet deep and 300 feet wide so that the plan contemplates a widening from 300 to 400 feet and the removal of an additional 15 feet of material throughout almost the entire length from Philadelphia to Trenton, at an estimated cost of in excess of $90 million.

Below Philadelphia the 30 miles or so of the river from New Castle, Del., to Philadelphia is almost entirely industrial and, in addition, because of the comparatively small amount of material to be removed in cleaning the channel and deepening it to 40 feet and because of the greater width of the river in this area, there should be little effect on the shoreline and no very great difficulty in disposing of the dredged material. Upon the other hand, above Philadelphia in the 18 or 20 miles from Torresdale to Trenton, although there are a number of industrial plants, both shores of the river are lined with individual holdings and homes covering an area far in excess of that occupied by industry. It is, therefore, easily understood why Philadelphia should favor the deepening of the channel from that city to the sea. The cost is comparatively small and the advantage to the great port of Philadelphia of having a channel which will permit its use by larger vessels is obvious.

This memorandum is, therefore, directed primarily to the situation which will be caused by the proposed deepening of the channel from Philadelphia to Trenton. The writer believes that he is competent to discuss this problem because of his very extended experience with the upper Delaware. He was born on the banks of the Delaware at Andalusia, Bucks County, Pa., more than 64 years ago and has lived there ever since. He owns property at this location, having a waterfront of approximately 4,000 feet. He has hunted and fished in the upper Delaware continuously for some 55 years and in so doing has acquired an intimate knowledge of its channel, tides, etc.

The history of the upper Delaware is that until after World War I the official depth at mean low water was approximately 12 feet, interspersed of course with sections where the natural channel of the River had a much greater depth. In the 1920's dredging operations were undertaken to make the 20-foot channel. During the depression years of the early 1930's the question arose of further deepening the channel to 25 feet. It is our recollection that the local office of the United States Engineers recommended against this because of the fact that there had been no substantial use of the greater depth since the channel had been deepened from 12 to 20 feet. The local office, however, was overruled in Washington and the deepening proceeded with in part as a "make work project" for relieving the unemployment situation. It is a fact, which was evident to anyone living on the river with an opportunity for daily observation, that at least until the new United States Steel plant began operations about a year ago there had been no substantial increase in the use of the river by deep-draught vessels sufficient to possibly justify the cost of the deepening and the resulting damage to the shoreline. That this is true is demonstrated by the fact that until the channel was pumped out to its authorized depth of 25 feet in the summer and fall of 1952, it had not been considered worth while to maintain the 25-foot depth, so that until that time, as a result of silting, there were parts of the upper river where the channel was as shallow as 18 feet at low water.

EROSION

Since the deepening of the channel to 25 feet there has been serious slippage or sinking of the river shores, particularly evident where the channel runs near one side of the river or the other. Engineers may question this, but it is a fact that the shoreline along the property owned by the writer has sunk on an average of about 2 feet since the channel was deepened. This may be demonstrated by the marks on the seawall of where the shoreline used to be. It is indeed a strange coincidence that this should have occurred since the channel was deepened when the older part of this seawall had stood without change for more than 100 years.

The effect of the sinking of the shore, is of course, to expose the foundations of seawalls, requiring tremendous expense for underpinning. As a result of the undermining, the seawalls on the writer's property have gone out in storms twice within the last 4 years—something which had never happened before. As an example of the cost, the writer has signed within a week a contract to replace the last washout for a distance of 150 feet at a cost of $1,800, plus $1,400 more for underpinning other sections to prevent further washouts.

It is obvious that an additional deepening of the channel to 40 feet, with a width of 400 feet, will greatly accentuate the effect on the shoreline and will

require the protection of seawalls and embankments for a distance of many miles. The expense of this would be tremendous, and has not been taken into consideration in the estimate made by the Army engineers of the cost of the work. A previous recommendation with which the writer was familiar was made contingent upon such consequential damages being absorbed by the local and State governments. It was proposed that they should agree to save the United States harmless from any claims for damages. Assuming that local units were willing to so agree in the event of the project being carried out, this would be wholly unsatisfactory to the owners of properties bordering the river. Any lawyer familiar with condemnation proceedings where a governmental unit is concerned, realizes the extremely vague legal boundaries between what are directed and what are consequential damages, and that ordinarily the United States Government is not legally liable for the latter unless specifically covered by the legislation authorizing the condemnation. An agreement whereby local governmental units would agree to assume such damages as the United States might be responsible for would be an invitation to litigation and completely unsatisfactory. If the project is to be gone through with, the only method by which riparian property owners could be properly protected would be by a direct agreement that some responsible governmental unit will pay for the protection of the shoreline and the necessary underpinning to seawalls, etc.

The expense of the proper protection of the river bank obviously adds tremendously to the cost of the project. It was interesting to note at a hearing held on February 11, 1952, before the Board of Engineers for Rivers and Harbors in Washington, that although nearly all of those who spoke in favor of the project represented organizations which felt that they would derive some direct or indirect advantage from the deepening of the channel; nevertheless their approvals were all qualified by the condition that it should not cost them anything. Upon the contrary, they made it clear that the entire expense should be borne by the Federal Government. This was directly contrary to the recommendation made by the Board of Engineers. Even the United States Steel Corp. itself, which would stand to gain most by the deepening of the channel, within the past year refused positively to make any contribution when the United States engineers suggested that it should bear some share of the cost necessary to deepen the channel in the upper river to a depth in excess of that for which anyone else had any need. In short, the people who clamor for a deeper channel, when put to the test of how much they need it, all back away when they are asked to contribute. They only want it if they can get something for nothing at the expense of the taxpayers.

FLOODING

Anyone familiar with tidewater rivers understands that the reason why they are generally not subject to serious flood conditions is because they are provided by nature with extensive marginal marshes and low areas which act as a safety valve in times of greatly increased flow resulting from heavy rains, held back by high ocean tides caused by storm winds. When the channel in the upper river has been deepened in the past, many of the marsh areas along the shores, which were formerly 3 or 4 feet below high water, have been filled in by the deposit of dredged material until they are now some 6 feet above high water. Since this occurred, the flooding of the upper Delaware in times of storm has substantially increased. On two occasions, once in the summer of 1933 and again in the fall of 1950, the tide has risen to a level of approximately 7 feet above normal. This is higher than on any other occasion within the writer's clear recollection since about 1900. It may be said that this is a coincidence, but the fact remains that since the filling of the marsh areas along the upper river the times when the tide has risen substantially above normal so as to flood over the usual seawalls have very much increased.

If the present project is carried out, it will obviously require the excavation of an amount of material vastly in excess of all that has heretofore been removed. When the channel was deepened to 25 feet, there were a number of stretches in the natural bed of the river which required no dredging at all. To put it down to 40 feet will mean the dredging of substantially the entire length of the river from Philadelphia to Trenton, for there are very few areas where the depth is now in excess of 25 feet at low water for any considerable distance. These many millions of cubic yards of mud, rock, and sand must be put somewhere. To cart them away would, of course, tremendously increase the cost, and we

understand that the Engineers' estimate is based upon the deposit of the excavated material in low areas along the river. This will have the effect of creating a situation somewhat similar to that which exists along such rivers as the Ohio and Mississippi, except that the riparian owners have been assured that none of the material will be placed in front of the property of anyone who does not wish it. The effect of thus constricting the river must inevitably be to increase the crest which will be reached by the water in times of flood. The many hundreds of homes and the industries which now lie on the banks have been built upon the basis of past experience with the river in times of flood. They are subject at the present time to a certain amount of damage from excessive high waters such as those occurring at the end of November 1950. It would require only a foot or two more to result in a flood disaster of major proportions. What consideration, if any, has been given to this danger in the drawing up of the present proposal?

If the Army engineers say, as some members of the organization have suggested in the past, that the deepening of the channel has no effect in causing the shore to sink or in producing flood conditions, we respectfully submit that the judgment of engineers who make an occasional trip up the river for the purpose of a survey is not to be compared with conclusions based upon a lifelong observation. The sinking of the shore is easily demonstrated and perhaps an experience of standing in water where water never used to come might be convincing.

It is obvious that the proposed deepening and widening of the channel would be a convenience to the new plant of the United States Steel Corp. at Morrisville, and they would like to have it. It is equally obvious that it is not a necessity to the steel corporation. The plant has been completed and is in successful operation without it. The writer has visited the plant within the week and went all over it with the manager. They are receiving and unloading on the average of one oceangoing ore vessel per day. Obviously, no company in its right mind would undertake the expenditure of hundreds of millions of dollars in the construction of such a plant if a deep-draft channel was a necessity for its successful operation without first assuring itself that such a channel would be installed beyond all question.

We have no doubt that if the steel corporation could bring larger ore vessels direct to the Morrisville plant they would save some operating expense, but at what an expense to the taxpayers. We feel confident in saying, after investigating the amount of ore which the mill is capable of consuming and railroad rates from Philadelphia to Morrisville as compared with the saving resulting from using larger boats which require more than a 25-foot channel, that the difference would not even equal the annual cost of the maintenance of the deeper channel, let alone interest upon the cost of its construction. Those who are unfamiliar with the silting ability of a stream which drains a tremendous area, as does the Delaware, have no conception of how rapidly Nature fills an artificially constructed channel.

We have noted with interest in connection with the demands made for the deepening and widening of the channel from Philadelphia to the sea (now 800 to 1,000 feet wide) that a principal reason given why this was urgently needed was that many collisions had resulted, causing great loss of life and property. The ships now using the port of Philadelphia are seldom in excess of 20,000 tons with a length of 500 feet, most of them being much smaller. The reason why the steel corporation says a deeper channel is needed in the upper river is because they wish to bring in vessels with a gross tonnage of close to 50,000 tons, having a length of over 600 feet, perhaps more. If smaller vessels cannot safely negotiate the lower channel, what may be expected when vessels of twice the size attempt to navigate the upper channel with a proposed width of half of that of the present lower channel? They will have some interesting problems when they come, for example, to the bends in the river at Bristol, Pa., and Florence, N. J., along with all the other shipping which it is claimed that the deeper channel will encourage. What further demands may this produce?

And what assurance is there that if the channel is deepened to 40 feet it will increase its usefulness to industries other than the steel corporation? The whole history of the river and the previous deepening of the channel indicates that there is no demand at present, nor is there likely to be in the foreseeable future, for a channel of a depth greater than the existing 25 feet at mean low water. As above indicated, the local office of the Army engineers itself in the early 1930's recommended against a further deepening from 20 to 25 feet because the

industries along the river had not shown enough interest in the then 20-foot channel to install docks capable of handling ships of even that draught. How do you turn a 600-foot ship in a 400-foot channel? Obviously, only by dredging a cut inshore from the channel and installing a dock so that a ship may turn in bow first with the aid of a tug and then back out with its stern upriver, similar to the method now used at the Morrisville plant of the steel corporation. This requires the expenditure of a tremendous sum for dredging, the installation of docks and annual maintenance. Among all the industries that have been long established along the banks of the upper Delaware we venture to say that you can count on the fingers of one hand those that have thought it worthwhile to provide docking facilities capable of handling oceangoing ships which can navigate the present 25-foot channel. What reason is there to believe that they will show any greater interest in a 40-foot channel? The answer is that this project is for the benefit of the United States Steel Corp.

Opposed to the convenience of the steel corporation and the desirability of adding to its already great profits at the expense of the taxpayer, we submit that the most serious consideration should be given to the interests of the thousands of homeowners in Pennsylvania and New Jersey whose properties lie on the shores of the upper river. The effect of a carrying out of the project would be to make the Delaware more like a huge canal than a river. There will necessarily be an increase in the pollution of the water, for this always occurs in waters which are largely used by shipping and it is something which as a practical matter it is impossible to control. Philadelphia, which takes most of its water from the upper river, should bear this in mind. Of course, if there should not be a heavy increase in shipping, with the resulting pollution, then the entire project is unjustified.

Furthermore, the upper Delaware is the only great water recreation area which remains in the Philadelphia vicinity. In addition to those who live along the shores of the river, thousands of people annually derive the greatest pleasure and benefit from boating, swimming, etc., in its waters. All of this will be greatly interfered with, if not entirely destroyed, if the river is to be turned into a shipping canal. We submit that the health and welfare of the residents along the river and the general public who now enjoy it should be considered, as compared to the convenience and profits of any industry, before this tremendous and, in our judgment, wholly uneconomically expenditure of public funds is authorized.

FIRST NATIONAL BANK & TRUST CO.,
Beverly, N. J., May 14, 1954.

Re Hearing on Senate bill No. 2317, Delaware River Channel project

PUBLIC WORKS COMMITTEE,
Senate Office Building, Washington, D. C.

GENTLEMEN: This is to protest against the dredging of the Delaware River Channel to 40 feet for the following reasons:

1. This is a direct subsidy to United States Steel.
2. Damage to riverfront property will amount to millions of dollars with no provisions for financing the damage.
3. Threat to pollution of the Raritan Strata from which a large part of this section obtains its principal water supply.
4. Salinity intrusion.
5. The necessity for large disposal areas will obliterate all lowlands along the river thus subjecting all riverfront property to serious flood damage.
6. The statements made by pressure groups, chambers of commerce, etc., that many industries on the river above Philadelphia need a 40-foot channel just isn't true. A large group of citizens on the riverfront have made a survey of the industries and all answered in the negative with the exception of two who replied that "they might use it."
7. Our county is so heavily burdened with debt that, in our opinion, such expenditures in these uncertain times are a threat to the Nation's security. Russia is waiting for us to bankrupt ourselves.

Respectfully yours,

F. P. JONES, Jr.,
President.

OFFICE OF THE MAYOR,
Trenton, N. J., May 11, 1954.

HON. JOHN C. WILLIAMS,
United States Senate, Washington, D. C.

DEAR SENATOR WILLIAMS: Enclosed herewith is a summary of remarks of Mr. Sheppard T. Powell which he gave at a luncheon meeting at the Hotel Hildebrecht in Trenton, N. J., on April 7, 1954.

Mr. Powell's report sets at rest any possible future claims of ground-water damage resulting from proposed dredging of the Delaware River between Philadelphia and Trenton.

With best wishes, I am

Sincerely yours,

DONALD J. CONNOLLY, *Mayor.*

REMARKS OF SHEPPARD T. POWELL AT TRENTON MEETING, APRIL 7, 1954

The proposed deepening of the Delaware River Channel and its possible effect on the water supply in New Jersey is a problem that effects every individual in this area. In an attempt to find out what could happen if and when the channel were dredged, a group of public-spirited individuals representing municipal and private interests banded together to find out what they could do in advance. The Committee for the Study of the Delaware River which financed and directed this study includes the Honorable George E. Brunner, mayor of Camden; the Honorable Henry W. Peterson, mayor of Woodbury; the Honorable George T. Becton, mayor of Riverton; the Honorable Michael S. Chanti, mayor of Florence; Mr. E. H. Aldrich, American Water Works Service Corp.; Dr. Thomas B. Downey, Kind & Knox Gelatin Co.; Mr. Ross L. Leffler, United States Steel Corp., and Oliver G. Willits, Campbell Soup Co., chairman of the committee.

About a year ago, after carefully screening the experts qualified the committee selected Mr. Sheppard Powell, consulting engineer, Baltimore, Md., who is recognized the country over as an outstanding expert on water supply.

Mr. Powell set out to determine if the water supplies in New Jersey would be damaged by dredging the channel to a depth of 40 feet from Philadelphia to Newbold Island, and to 35 feet from there to Trenton.

Most communities in southern New Jersey depend for their water supply upon artesian wells. In order to determine the possibilities of damage to their well water, the following questions required specific answers based on factual information:

(1) Will the proposed dredging permit salt water to penetrate upstream along the bed bottom of the river and seep into the ground water supplying these many communities and industries in New Jersey?

(2) Will the concentration of sea salt in the river water above Philadelphia be increased by dredging?

(3) Will tastes and odors develop in the ground water in New Jersey as a result of increased seepage of river water from the dredged areas?

(4) Will the well waters be made less desirable by increased river seepage containing bacterial contamination?

(5) Will the releases of additional water by New York during low river stages, as proposed in the formula agreed to by New York and New Jersey, improve the quality of the river water and consequently the ground water?

A summary of Mr. Powell's conclusions, in answer to these questions is as follows:

SALT WATER CONTAMINATION

(1) Salt water does not penetrate up the Delaware River along the bottom while fresh water flows on top, as occurs in some tidal river. Formation of layers of salt and fresh water does not occur in the Delaware River except below Wilmington, even during extremely low water.

(2) The concentration of salt in the river water at or above the Torresdale filter plant will not be increased by enlarging the channel above Philadelphia. Tests made by the Army Engineers indicated that enlargements of the channel above Philadelphia will not increase the chlorides in the water in any part of the river. Mr. Powell's mathematical studies of chlorides in the water confirm these findings.

(3) The increased flow of the river measured at Trenton under the proposed releases of water from the reservoirs in New York will improve the quality of the well water at low stages of the river in the Philadelphia-Camden area and above.

TASTES AND ODORS

Said Powell, "The river water between Philadelphia and Trenton contains tastes and odors at all times, due to pollutants discharged into the river at various locations. Occasionally, chemical spills into the river have created highly objectionable conditions. Regardless of the quality of the river water in this respect, the ground water in New Jersey has been free from taste and odor traceable to river water. Of 65 individual wells investigated, extending from Gloucester to Florence, not a single case of tastes and odors attributable to river water contamination was found."

"From these observations it is apparent that the elements responsible for tastes and odors are removed or destroyed by passage through natural filters as the water flows to the wells. The removal of a few feet of the river bottom will not materially alter the quality of the water in these wells."

Mr. Powell concludes from his interpretation of the hydraulic, chemical, and bacterial data on the river that there is no indication that the quality of the ground water in New Jersey will be damaged by the proposed enlargement of the channel above Philadelphia. Mr. Powell reports that all of the findings are substantiated by carefully prepared charts, graphs, and general data.

BEVERLY, N. J., *May 17, 1954.*

SENATE PUBLIC WORKS COMMITTEE,
Senate Office Building, Washington, D. C.

GENTLEMEN: I beg to submit to your honorable body my most vigorous protest against the project of dredging a 40-foot channel in the upper Delaware River tween Philadelphia and Trenton at an estimated cost of some $90 million as proposed by Senate bill 2317.

Such a plan would amount to nothing more or less than a gigantic Government subsidy to the United States Steel Corp., whose new Fairless Works was recently established in this area.

The steel company wants the 40-foot channel in order to permit the passage of its new extremely large ore-carrying ships which are now being built in Japan. These vessels are of enormous size—794 feet overall length—the largest cargo carrying vessels ever constructed, I understand. There is not at the the present time, or even remotely in prospect, a single industrial concern on the Delaware River above Philadelphia, with the exception of United Steel Steel, that is in any position to make use of the extremely large class of vessels for which a 40-foot channel would be required. Docking and cargo-handling facilities to accommodate such supersized vessels are nonexistent on the upper river, with the exception of those of United States Steel's Fairless Works, and to the best of my knowledge, there isn't another private corporation or any municipality on the upper river that would even consider making the huge investments to provide them.

I submit that for the United States Government to expend $90 million or any sum remotely approaching that figure on a facility solely for the benefit of one private concern would be a highly improper use of public funds.

Besides the economic unsoundness of the channel project, grave fears are entertained throughout this area that the excavation of such vast amounts of material from the bed of the narrow river would cause severe damage to shoreline property, through slides and rapid erosion.

I cannot too strongly urge that all evidence submitted to your committee by proponents of this channel project be subjected to the closest scrutiny. As an old resident of the Delaware Valley, with firsthand knowledge of the situation, I can assure you that some very misleading propaganda, in which fact and truth are badly distorted, is being circulated in promotion of this measure.

Very truly yours,

CHARLES N. CODDING.

BEVERLY, N. J., *May 17, 1954.*

Re Senate Bill No. 2317.

SENATE PUBLIC WORKS COMMITTEE,
Senate Office Building, Washington, D. C.

GENTLEMEN: As a taxpayer I am thoroughly disturbed over the idea of the expenditure of $90 million for a 40-foot channel from Philadelphia to Trenton.

My home has been on the bank of the Delaware River for over 30 years. During that time I have seen at least one section of this residential area spoiled by

the deposits from dredging of the present 25-foot channel. So far as I have been able to observe from my daily view of river traffic, there was no appreciable increase in the number of ships plying this stretch of the Dalaware until after the Fairless steel plant located at Morrisville, Pa., last year. Since then, ore boats have negotiated the present 25-foot channel frequently and successfully. According to newspaper reports of ship movements, these are all consigned to the Fairless plant, otherwise there has been no increase in traffic.

Further unnecessary dredging to 40 feet could well destroy value of our riverfront properties by deposits of sand along the shoreline, and by slipping of the banks themselves as a result of excavations. Also, there is at present a natural wildlife preserve for aquatic birds in the marshes, but with sand pumped into these, that is one more phase of our natural resources destroyed.

Are all these disadvantages to be risked, at taxpayers' expense, for the benefit of one and only one industrial concern which is apparently being served adequately by the present 25-foot channel?

As one taxpayer, living on a small income, I wish to register my protest and ask for your committee's most careful consideration of the bill before you.

Respectfully,

LAURA B. THAYER.

BEVERLY, N. J., *May 18, 1954.*

PUBLIC WORKS COMMITTEE,
Senate Office Building, Washington, D. C.

GENTLEMEN: I am much concerned over Senate bill 2317 and certainly hope that it is not enacted. In my opinion it would serve no useful purpose and as the steel mills are getting a plentiful supply of ore from the boats that are now using the river regularly, and they are good-sized boats. It would make the river very unsightly because of the dumping of sand along the banks and meadows as has been already done to some extent and there is also much danger to water supplies and the shifting of the riverbanks.

There used to be fine hunting and fishing along the Delaware River and a project such as this will about finish this for all time.

I cannot see the reason for spending $90 million to do a job such as this when it is very satisfactory as it is at present.

I urge you gentlemen not to approve this bill.

Respectfully,

R. S. HOLLAND.

FLORENCE TOWNSHIP ON THE DELAWARE,
Florence, N. J., May 18, 1954.

Re 40-foot channel, Delaware River.

SENATE PUBLIC WORKS COMMITTEE,
Room 412, Senate Office Building, Washington, D. C.

GENTLEMEN: It is my opinion that we, in Florence Township, are definitely in favor of a sound, orderly development of the Delaware River Valley, but the question of the 40-foot channel has many, many angles and I wonder if it is actually necessary for the complete development of the area; especially due to the fact that only 1 industry is able to use a 40-foot channel.

It seems to me that this tremendous expenditure of taxpayers' money would be in the form of a subsidy for the Fairless steel plant.

In one of the surveys with the Army Engineers Corps, down the river from Trenton to Wilmington, one of the main things I observed was that the ocean-going ships, coming into the port of Philadelphia, fully laden, only drew from 28 to 30 feet of water. This raises the question in my mind as to whether a 40-foot channel is definitely necessary. Of course, we hear that they are building tremendous ships in Japan that will need a 40-foot channel but the question is "Are we to furnish a 40-foot channel to accommodate Japanese ships if a lesser one would be adequate for our own?"

Here in Florence, we know we are in a very critical area in regard to the channel, being situated at the highest point between Philadelphia and Trenton and we feel that there is a definite danger of damage being done to our banks and to our properties. Of course we are told our problems have been resolved in regard to this danger; that no damage will be done to our water supply and to our banks and wharves; that they will be protected. However, I would like to strongly recommend, if the channel is to be deepened and widened, that along

the Florence and Roebling range it be moved toward the Pennsylvania side of the river as far as possible since there would be little or no damage to the Pennsylvania side but a great deal of chance for damage on the Florence-Roebling side.

Further, I understand that in Venezuela they are digging a 32- to 33-foot channel in the Orinoco River with which to bring out the ore and I see no reason, therefore, to dig a 40-foot channel here to bring it in.

Will you kindly admit this letter as part of the record, if possible?

Thanking you for your consideration, I am

Yours very truly,

RAYMOND N. SUTPHIN,
Commissioner, Public Buildings, Parks, Grounds.

PATERSON PARCHMENT PAPER CO.,
Bristol, Pa., May 18, 1954.

Reference: Senate bill 2317, hearing of May 13, 1954.

SENATE PUBLIC WORKS COMMITTEE,
Senate Office Building, Room 412,
Washington, D. C.

GENTLEMEN: We understand that a hearing was held on May 13, 1954, in reference to Senate bill 2317 of which we had no notice. We also understand that there was no representation by the opposition at this hearing.

We would like to go on record again at this time that our company opposes this project and we are citing below some of our reasons:

Item I.—The first and most disturbing of the probabilities which occur to us is the question of salinity intrusion. For your information the manufacture of parchment paper, which is a food wrapper used for protective wrapping of highly contaminable foods such as butter, lard, meats, et cetera, require the use of great quantities of water and the process is such that the manufacture of the paper for this purpose is normally accomplished by means of intimately mixing wood pulp fibers with water so as to distribute this fiber in a uniform mat on a traveling screen. The proportion of water to wood pulp is in the ratio of 400 to 1 and any salt content in the water would be deposited in the wood pulp fibers. Any salt content in the water, therefore, must be very, very minute and we believe that a very few parts per million of salt would be sufficient to make the manufacture of parchment paper out of the question. We are perhaps in a more critical situation with regard to salinity intrusion than any other industry located along the Delaware River and we cannot go along with a project which jeopardizes our manufacturing process to the extent where it would be necessary to relocate the plant facilities to another location in order to obtain water suitable for our process.

Item II.—A further cause of consideration lies in the fact that the deepening of the channel will probably tap underground water either by means of underground springs or streams. We have no indication regarding the type of water which will be tapped and which will be introduced into the Delaware River by this means and we cannot foresee the future condition of the Delaware River water in this circumstance. We must once again point out that we feel there is a great possibility of manufacturing difficulties due to this condition which may become serious enough to require extensive filtration changes if the water can be properly purified by means of filtration.

Item III.—We are further greatly disturbed by the possibility of a change in river-water level. In your report you state that the low-water river water level will be 0.6 feet lower than present. Our present water intake lines are at a level whereby we have experienced conditions which very nearly shut down the plant in the past. These conditions were in the case of very low water where we experienced a low tide and a heavy wind in the direction which tended to in effect move the water downstream and this has made a sizable difference in the level of water at our intake lines. Any further lowering of river water beyond the present condition would surely mean that our intake lines, which include a concrete intake crib, would have to be relocated. This would necessitate dredging, rebuilding the intake crib, and replacing or relocating the intake lines. All of this work would be a matter of considerable expense and the Paterson Parchment Paper Co. does not feel that it should be penalized by being called upon to bear the burden of this expense.

Item IV.—The nominal width of the channel in the area immediately adjacent to the plant property is specified as being 400 feet. Due to the fact that

the Paterson Parchment Paper Co.'s plant property is located on a bend of the river, the probability is that the channel width in this location will be considerably wider. If the present navigational ranges, which are the Landreth Channel and the Florence range, are maintained and if the present buoys are maintained as the location of the edge of the channel, any deepening of this channel as it is, without widening, would be very apt to cause a considerable amount of erosion along the shoreline. The Paterson Parchment Paper Co. shoreline along the Delaware River extends for a distance of 1,700 to 1,800 lineal feet taken from the Bristol end of the property to the mouth of the common creek. When we stop to consider that our water intake crib presently is located approximately 550 feet from the center of the existing channel and approximately 300 feet from the edge of the existing channel (information obtained from the Coast Guard and the Army Corps of Engineers), and we further note from the report that the slope which is specified as being in proportion of 1 foot rise to 3 feet horizontal run, we arrive at a condition whereby the top of the slope, assuming ground level at low-water level, would be a mere matter of 180 feet away from our intake crib. All of this is predicated on the westerly edge of the channel remaining in its present location. In case the channel is widened and any of this width is obtained on the westerly side, this would further aggravate the probable difficulties which may be encountered. Erosion can cause serious difficulties with this and could damage the substructure of this intake crib to the extent whereby replacement would be necessary. With regard to the balance of the shoreline under consideration, we must realize that the present channel is quite close to the westerly shore which forms the line of the Paterson Parchment Paper Co. property. You must also realize that most of the shoreline along this property is located on the bend of the river. In a practical approach to the entire matter, it seems to the writer that there would be considerable widening of the channel at this bend, and that this widening would of necessity have to be on the westerly side for the purpose of maneuverability of the large size vessels proposed for use by the United States Steel Co. We are sure that there would be considerable erosion along our shoreline and that the cost of stabilizing the slopes along this distance of 1,700 to 1,800 lineal feet would be another matter of great expense which the Paterson Parchment Paper Co. should not be called upon to pay.

Item V.—In the actual construction of the new and deepened channel, there is no mention in the report regarding the location of rock in the Delaware River along the Paterson Parchment Paper Co. shoreline. On the presumption that rock is encountered and that blasting will be required, there is an extremely great possibility of damage to equipment installed in our plant. This does not only include the possibility of damage to the turbogenerators but also to plant instruments and precision production equipment. Most of our equipment is in the nature of large machines and our product requires that these machines be constructed of the highest precision on the most stable foundations in order to maintain this precision. Disturbances in soil conditions which would cause misalinement to some of the equipment could be extremely dangerous and might result in the necesssity of rebuilding the entire substructure as well as to rebuild the equipment involved. The Paterson Parchment Paper Co. does not feel that it should be penalized by this possibility to the extent whereby any part of the burden of cost would be placed on this company.

Item VI.—There is a further possibility of a continued periodic damage which would be the cause of considerable expense in the case of the use of the proposed channel by the various oceangoing vessels. We all know that there are laws regarding the disposal of oil and refuse from vessels while they are navigating in inland waters, but we also know that a case such as this where there is considerable length of inland water involved would be the occasion of violations of these laws from time to time. Any oil or refuse which would enter into our filtration system would cause considerable harm and could very easily damage the paper produced in this plant. This would be particularly true in the case where we are experiencing low water, and floating oil would enter our intake pipes.

From the above you will readily realize that there are some serious objections from our point of view to the construction of the project as outlined. All of these objections resolve themselves to matters of probable and possible expense which should not be borne by the Paterson Parchment Paper Co.

Yours very truly,

PATERSON PARCHMENT PAPER CO.,
GRANT D. MUSCHLITZ, *Plant Engineer.*

GEORGE C. KRUSEN & SON,
PHILADELPHIA, PA., *May 18, 1954.*

COMMITTEE ON PUBLIC WORKS,
United States Senate, Washington, D. C.

GENTLEMEN: I am writing in opposition to Senate bill 2317, providing for a 40-foot channel in the upper Delaware River. My position supports the stand of the Delaware River Valley Association, as outlined in their statement submitted for the record at the recent hearing on this bill.

As a resident of one of the towns on this stretch of the river, familiar with the area geographically and industrially, I believe that a 40-foot depth of channel is totally unnecessary, is desired by no industrial interests in the locality except the United States Steel Corp., and therefore would be nothing but a subsidy to them at the taxpayers' expense. This expense, estimated at ninety-odd million dollars as a start, seems totally unjustified from the standpoint of anyone but the single beneficiary corporation. They are the only industrial plant who need such facilities, and this need is simply in connection with a very special type of ore carrier, a type of ship only now being constructed, and not contemplated by any other industrial plant likely to locate in this area.

Freighters of 8 to 10 thousands tons are currently using the river every day, with only a 25-foot depth of channel, and ore could easily be carried to the steel plant indefinitely in ships of this type, or in considerably larger ones with a depth not in excess of 30 feet. It seems utterly ridiculous, therefore, at a time when the country is trying to balance its budget and use all available revenues for vital purposes of defense and really indispensable public works, to spend this amount of money on a 'dead-end" channel simply to make economies for one industrial plant.

It would require 4 to 5 years at the least to complete the operation, and during that time very serious disruption of river and road and railroad traffic would be inevitable, particularly since two important bridges over the river would have to be virtually rebuilt. The cost estimate of this rebuilding alone is reported as about $14 million. This is all a totally unnecessary expense, when the operations of the steel plant are entirely feasible with a much smaller depth.

There are other quite valid, if less important, objections to this project. It might contaminate the water supply of numerous communities drawing their water from the Raritan stratum through artesian wells, and if this contingency is perhaps remote, it must be considered, because if it did happen it would be absolutely crippling to those communities. Such a project could also make an unsightly industrial "canal" of a river which is now an asset to a vast community for recreational purposes, and which the bordering States and communities have been improving in recent years at considerable expense for reasons of health, appearance, and general aesthetic values. I believe that such considerations of aesthetics are just as important in weighing a project like this as are the arguments on the other side of dollar benefits to industrial interests. They have just as much, if not more, importance to the community as a whole. And it is the whole community, in fact the entire Nation, which is paying the bill.

Naturally most of the publicity on this project has been from the "pro" side. This is natural because the promoters have a commercial purpose, have money to spend to further it, and can appeal to chambers of commerce and port commissions and other bodies naturally interested in getting Federal funds allocated to the local area. Those opposed to the idea do not have these resources, and therefore you have perhaps heard much less from them. I assure you, however, that serious, thinking local people, who know local conditions and the facts, are in most cases convinced that the project is unnecessary and uneconomic, for reasons that can only be set forth in bare outline in a letter of this sort.

In considering this whole matter, I hope that you will consider these reasons very thoroughly and seriously before a final decision is made.

Sincerely yours,

G. ELLIOTT KRUSEN.

BUREAU OF PORT OPERATIONS,
DEPARTMENT OF COMMERCE,
Philadelphia, Pa., May 13, 1954.

Senator EDWARD MARTIN,
Senate Office Building, Washington, D. C.

DEAR SENATOR: I regret very much that I was unable to attend the meeting of the Public Works Committee of the Senate that was held this morning at 10

a. m., at which time I would have liked to present the attached statement on behalf of the city of Philadelphia.

Will you be kind enough to have this statement, which I believe clearly expresses the sentiment of the city government in this matter, made a part of the record?

You can be assured that the efforts extended by you for development of the Delaware River project is appreciated.

Sincerely,

THOMAS C. BROWN,
Director of Port Operations.

STATEMENT OF THOMAS C. BROWN, DIRECTOR OF PORT OPERATIONS, DEPARTMENT OF COMMERCE, CITY OF PHILADELPHIA

Both Mayor Joseph S. Clark, Jr., and Director of Commerce Walter M. Phillips, would be present at this hearing except for long-standing engagements which could not be canceled on the short notice which was received. I have been requested by the mayor and the director of commerce to represent the city on this occasion.

As expressed in Director Phillips' open telegram yesterday to Senator Martin, as chairman of the Public Works Committee of the United States Senate, our city government is in favor of a deep channel from Philadelphia to the Trenton-Morrisville area. We believe that what strengthens the general area and facilitates the trade and commerce of our Nation, is of benefit to Philadelphia.

The area from Trenton to Wilmington and especially on the Pennsylvania side of the Delaware River is becoming one great urban community. Inside the city limits dwell about 2 million people, but in the greater Philadelphia area which includes the city itself, there are about 3½ million people, and in the entire Delaware Valley, again including Philadelphia, there is encompassed about 4½ million population. The city recognizes that it is the nerve center of this growing and vibrant region.

The upper river, above Philadelphia, has a special significance which has become of great immediate importance on account of the depletion of our iron-ore resources in the United States. It is a most logical place for the basic steel industry. Iron ore can be most economically brought here in huge ore ships (provided the deep channel is authorized and constructed) and can be made into steel without transshipment. The upper river is important because of an abundant supply of fresh, clean, soft Delaware River water, so useful in the steelmaking processes. For example, the Fairless works of the United States Steel Co., already located on the upper river, draws from the river and puts back into the river—when working at capacity—two-thirds as much water as the entire city of Philadelphia.

The upper river is ideal from the standpoint of markets, and also from the standpoint of land transportation. The area between Camden, Trenton, and Philadelphia, embracing both sides of the river, is potentially one of the greatest industrial districts of the world. Only one further ingredient is needed, namely, a channel which will carry the largest ships and tankers afloat.

The United States Government alone holds the responsibility for developing this great natural resource. The benefits will accrue to the States on both sides of the river and to all of the local communities, both abutting the river and in the near hinterland. Basic industries, satellite industries, and service activities will also benefit. It cannot be said who morally should contribute toward the cost. Any concern, from any part of the country, can move here and benefit from the channel after it is dug. It would seem like a shrinking from responsibility for the United States Government to require that industries now located on the upper river and expecting to benefit from the channel should make special payments for it while others coming in later would be under no obligation to contribute. We believe that the clean-cut way of handling this improvement is for the United States Government to do the entire job of a 40-foot channel to Newbold Island and 35 feet from there to Trenton, itself bearing the entire cost.

This committee should know that the city of Philadelphia does not anticipate the development of extra cargo through the port of Philadelphia on account of the upper-river channel. In fact, port development above the city may divert cargo from the city's present port facilities. Nevertheless, we feel that the interest of the whole in this case rises to such proportions that it far outweighs the local territorial and jurisdictional considerations.

We request respectfully that the Senate Committee on Public Works report favorably on the authorization of a 40-foot channel to Newbold Island and a

35-foot channel from there to the Trenton Marine Terminal, and that it recommend the full cost should be borne by the United States Government.

STATEMENT OF MR. DAVID J. MCDONALD, PRESIDENT,
UNITED STEELWORKERS OF AMERICA

As president of the United Steelworkers of America I endorse that part of S. 2317 which declares for the further deepening of the Delaware River from the Philadelphia Navy Yard to Trenton, N. J., for oceangoing vessels.

I heartily agree that this will assist the national-defense effort in this area and will afford opportunity for industrial growth and expansion in this region.

The improvement of the Delaware River will enable the steel and other industries to efficiently utilize low-cost water transportation, which is necessary to their transport requirements for the receipt of large volumes of raw materials and the shipping out of a variety of finished products.

The United Steelworkers of America believe that the Delaware River should be enlarged to a depth of 40 feet from the Philadelphia Naval Base to Newbold Island and a 35-foot channel beyond to Trenton. This is in keeping with one of the recommendations of the United States Army engineers in their report dated January 1953.

We find no merit in the alternate recommendation of the engineers in regard to a 35-foot channel, nor do we hold to the belief that local interests should be asked to make a cash contribution of $18 million for one-half the incremental cost of the 40-foot channel over a 35-foot channel.

Over the years and by statute the Federal Government has borne the burden and the responsibility for the improvement and maintenance of the Nation's rivers and harbors. This is as it should be.

Therefore, inasmuch as an improved waterway is a vital link in the Nation's transportation system and such appropriations for harbor and channel development are sound investments, we respectfully urge the Subcommittee on Flood Control, Rivers and Harbors of the Committee on Public Works of the United States Senate to amend bill S. 2317 to provide for a 40-foot channel from Philadelphia Naval Base to Newbold Island and a 35-foot channel beyond to Trenton. Also, that the complete cost of this project shall be borne by appropriations, duly appropriated by the Congress of the United States.

It is estimated that it will take 4 years to complete this project. I hope that the committee will see fit to report out this bill favorably and that the necessary funds can be made available with a minimum of delay.

GREATER PHILADELPHIA MOVEMENT,
Philadelphia, Pa., May 19, 1954.

Re S. 2317.

Hon. PRESCOTT G. BUSH,
Senate Committee on Public Works,
Senate Office Building, Washington, D. C.

DEAR SENATOR BUSH: The Greater Philadelphia Movement has as its board of directors leaders in industry, commerce, education, labor, and the professions. It is a nonpartisan group devoted to the social, economic, and governmental development of the Philadelphia metropolitan area.

We are convinced that the proper development of the area on both sides of the Delaware River from Philadelphia to Trenton is largely dependent on a river channel of proper depth and width to accommodate modern cargo vessels. The Army engineers have concluded that a 40-foot depth to Newbold Island and 35 feet from there to Trenton are the proper depths.

We heartily support this project and we urge your committee to make a favorable report on this bill and to recommend early action by the Congress.

We greatly appreciate your courtesy in telling our Mr. Wagner at the hearing last Thursday that we could file this statement with your committee this week.

Sincerely yours,

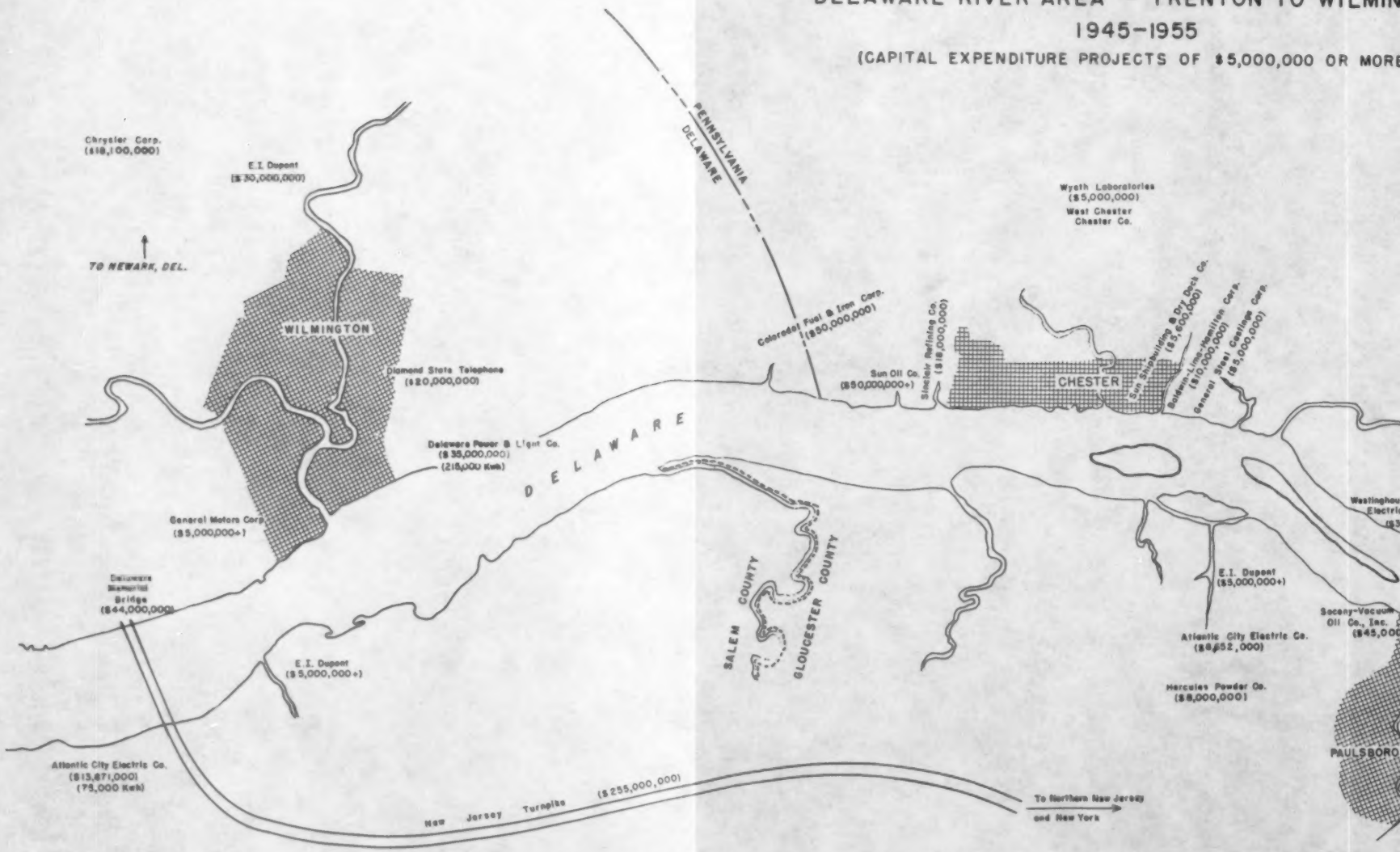
GEOFFREY S. SMITH, *Cochairman.*

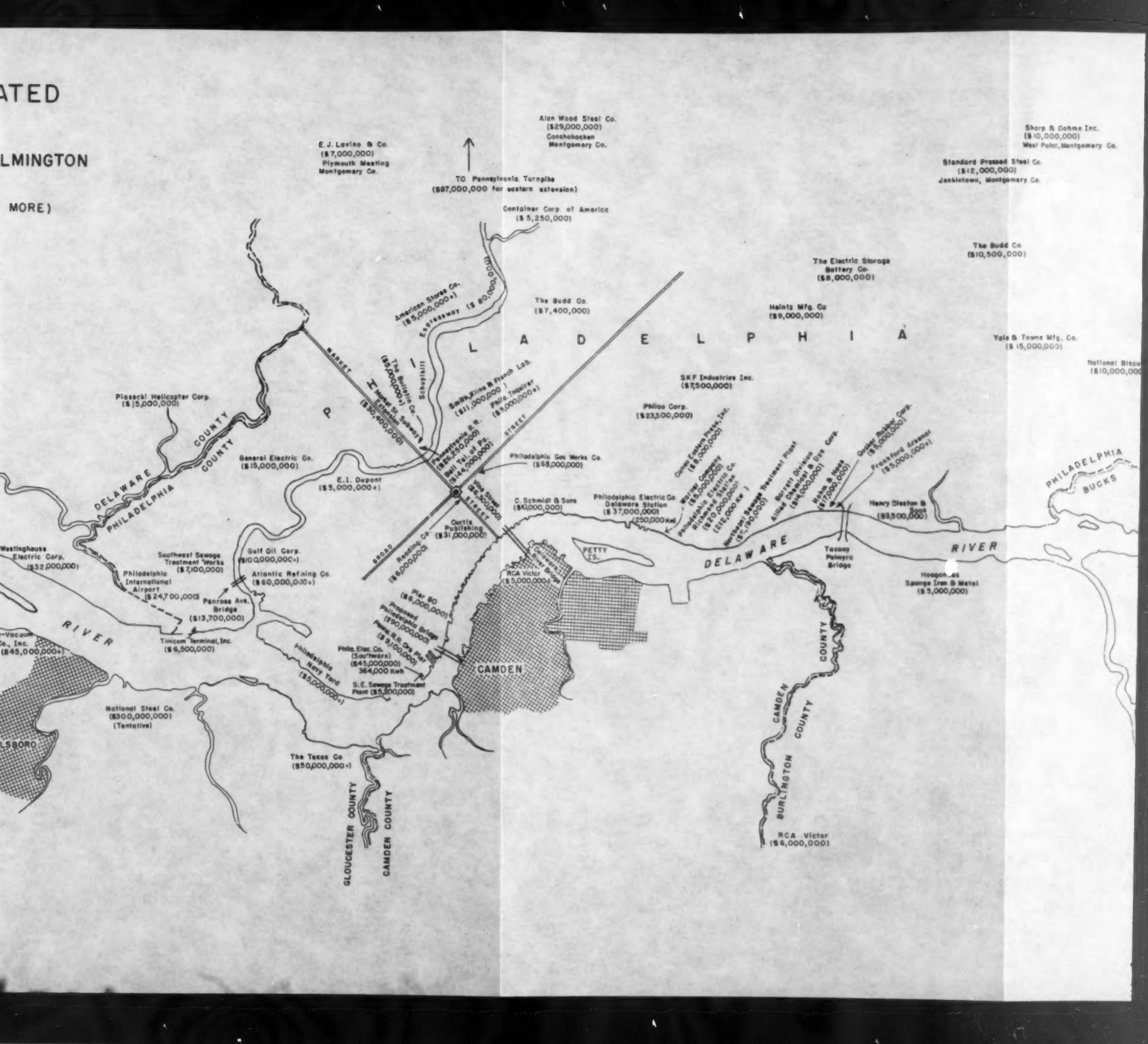
INDUSTRIAL AND RELATE
DEVELOPMENT

DELAWARE RIVER AREA — TRENTON TO WILMIN

1945–1955

(CAPITAL EXPENDITURE PROJECTS OF $5,000,000 OR MORE

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MORE)
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Alan Wood Steel Co. ($29,000,000) Conshohocken Montgomery Co.
TO Pennsylvania Turnpike ($87,000,000 for eastern extension)
Container Corp. of America ($ 5,250,000)
Sharp & Dohme Inc. ($10,000,000) West Point, Montgomery Co.
Standard Pressed Steel Co. ($12,000,000) Jenkintown, Montgomery Co.
The Budd Co. ($10,500,000)
The Electric Storage Battery Co. ($8,000,000)
American Stores Co. ($5,000,000+)
Expressway ($ 80,000,000)
The Budd Co. ($7,400,000)
Heintz Mfg. Co ($9,000,000)
Yale & Towne Mfg. Co. ($ 15,000,000)
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L A D E L P H I A
MARKET STREET
The Bulletin Co. ($5,000,000+) Interstate Expressway ($30,400,000)
Schuylkill
Smith, Kline & French Lab. ($11,500,000)
Phila. Inquirer ($5,000,000+)
SKF Industries Inc. ($7,500,000)
Philco Corp. ($23,500,000)
Plasecki Helicopter Corp. ($15,000,000)
DELAWARE COUNTY
PHILADELPHIA COUNTY
General Electric Co. ($15,000,000)
Pennsylvania R.R. ($26,250,000) Bell Tel. of Pa. ($144,000,000)
Philadelphia Gas Works Co. ($68,000,000)
Curtis Paper Co. ($8,000,000) Warner Company ($5,000,000) Philadelphia Electric Co. Richmond Station ($20,000,000) ($12,000,000 kw)
Borrett Division Allied Chemical & Dye Corp. ($14,000,000)
Kopp & Haas ($7,000,000)
Crocker Rubber Corp. ($5,000,000)
Frankford Arsenal ($5,000,000+)
E.I. Dupont ($5,000,000+)
Penn Sugar Co. ($ 3,500,000)
BROAD STREET
Reading Co. ($6,000,000)
Curtis Publishing ($31,000,000)
C. Schmidt & Sons ($10,000,000)
Philadelphia Electric Co. Delaware Station ($ 37,000,000) (250,000 Kw)
Northeast Sewage Treatment Plant ($5,190,000)
Henry Disston & Sons ($8,500,000)
PHILADELPHIA
BUCKS
Westinghouse Electric Corp. ($32,000,000)
Southwest Sewage Treatment Works ($7,100,000)
Gulf Oil Corp. ($100,000,000+)
Philadelphia International Airport ($24,700,000)
Atlantic Refining Co. ($60,000,000+)
Penrose Ave. Bridge ($13,700,000)
Tinicum Terminal, Inc. ($6,500,000)
Pier 80 ($6,000,000)
Proposed Philadelphia Bridge ($90,000,000)
Penna R.R. Org. Plan ($3,100,000)
Phila. Elec. Co. (Southwark) ($45,000,000) 364,000 Kwh
S.E. Sewage Treatment Plant ($5,000,000)
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PETTY I'S.
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RCA Victor ($5,000,000+)
DELAWARE RIVER
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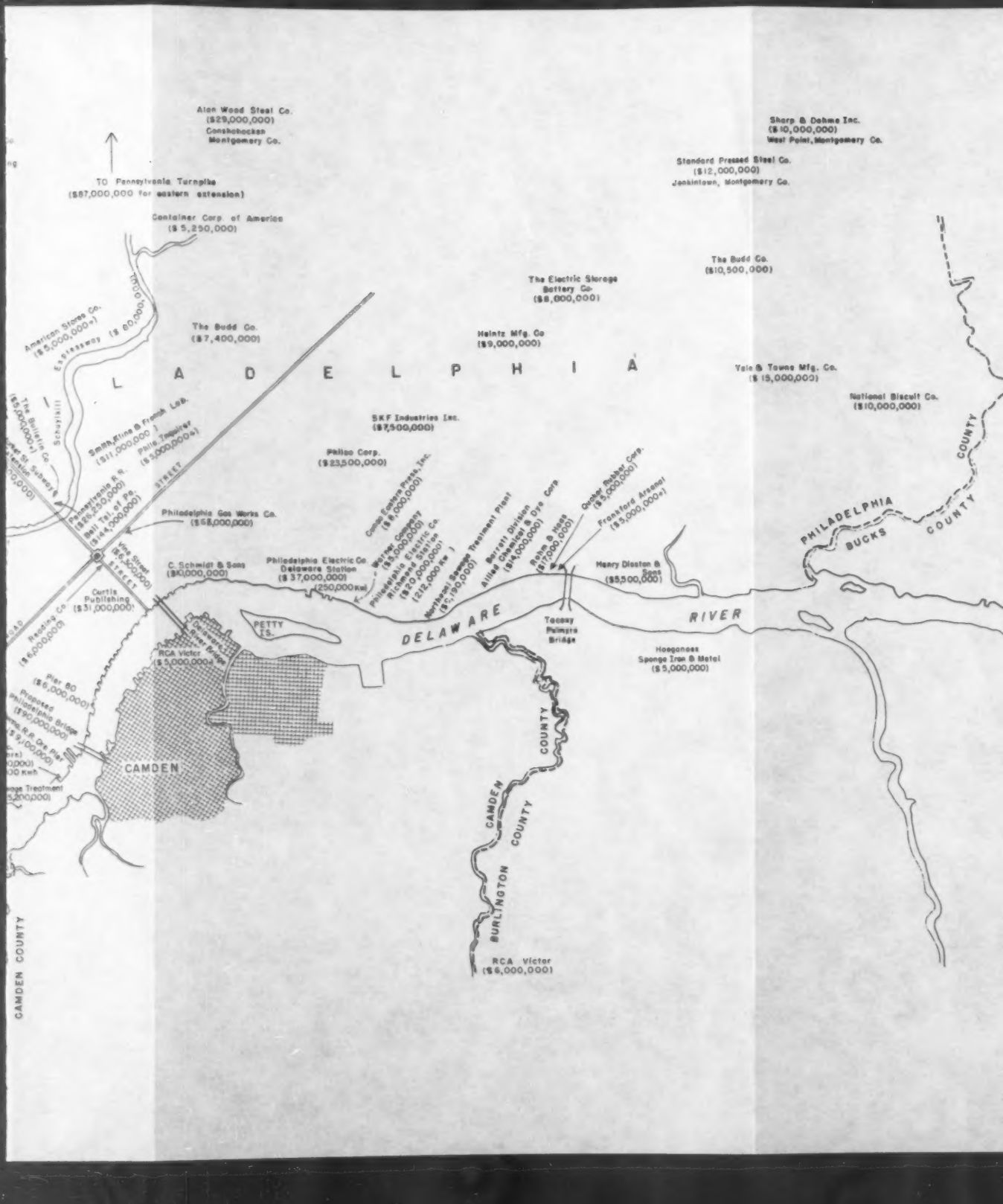
Hoogovens Sponge Iron & Metal ($5,000,000)
RIVER
-Vacuum Co., Inc. ($45,000,000+)
CAMDEN
CAMDEN COUNTY
BURLINGTON COUNTY
National Steel Co. ($300,000,000) (Tentative)
LSBORO
The Texas Co ($50,000,000+)
GLOUCESTER COUNTY
CAMDEN COUNTY
RCA Victor ($6,000,000)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Smith, Kline & French Lab.
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Phila. Transitway
($5,000,000+)
SKF Industries Inc.
($7,500,000)
Philco Corp.
($23,500,000)
Pennsylvania R.R.
($25,250,000)
Bell Tel. of Pa.
($144,000,000)
STREET
Philadelphia Gas Works Co.
($58,000,000)
Congo Eastern Press, Inc.
($8,000,000)
Warner Company
($5,000,000)
Philadelphia Electric Co.
Richmond Station
($20,000,000)
(212,000 Kw)
Northeast Sewage Treatment Plant
($5,190,000)
Barrett Division
Allied Chemical & Dye Corp.
($24,000,000)
Rohm & Haas
($17,000,000)
Crucker Rubber Corp.
($5,000,000)
Frankford Arsenal
($5,000,000+)
PHILADELPHIA
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Vine Street
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Publishing
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RIVER
Tacony
Palmyra
Bridge
Hoeganaes
Sponge Iron & Metal
($5,000,000)
Pier 80
($6,000,000)
RCA Victor
($5,000,000+)
Proposed
Philadelphia Bridge
($90,000,000)
CAMDEN
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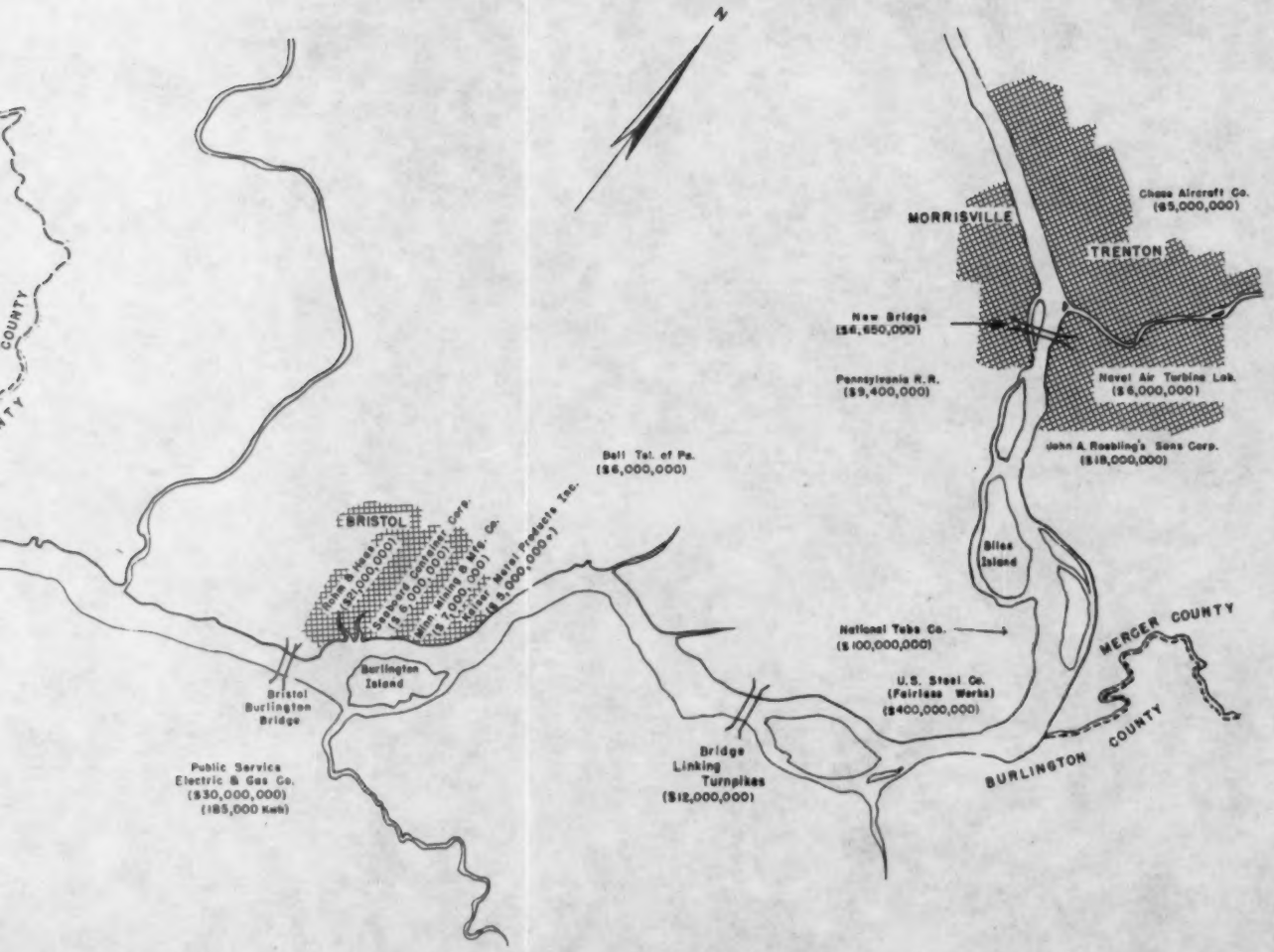
BURLINGTON
COUNTY
RCA Victor
($6,000,000)
CAMDEN COUNTY



"Prepared by Chamber of Commerce of Greater Philadelphia, November, 1951"

Revised May, 1953

49986 O - 54

BEVERLY, N. J., *May 20, 1954.*

Re hearing on Senate Bill No. 2317, Delaware River Channel Project.

PUBLIC WORKS COMMITTEE,
Senate Office Building, Washington, D. C.

GENTLEMEN: I sincerely trust that this bill will be given your mature consideration and not hastily approved, if at all, because I live in this riverfront section and know many of the manufacturing interests do not want or need it. There is no comparison between this proposal and the St. Lawrence seaway, the latter being self-liquidating. I ask respectfully that your committee answer properly the following questions:

1. What will it do to our water supply?
2. What salinity intrusion will occur?
3. Where would the dredged debris be deposited?
4. Who will pay losses from bank erosion and blasting—I live on this riverbank?
5. What company wants this channel?
6. How much would a company be willing to pay to dock vessels drawing 40 feet—a vessel like this is at least 700 feet long—with a channel 400 feet wide how would you turn it around and what size dock?

I also draw your attention to the attached editorial and the facts contained therein of my local newspaper of the issue of Friday, December 18, 1953.

It honestly appears to all of the thoughtful and public-minded citizens of this area that the proposed expenditure is entirely unwarranted, particularly in the face of proposed Government economies and our prevailing tax rate. I can tell you frankly that there is much concern about that situation in this area.

I wish to have your acknowledgment of this letter and also have the facts in it and the material sent with it a part of the record.

Sincerely,

H. A. THOMSON.

[From Beverly Banner, December 18, 1953]

CHANNEL CHAT

The Philadelphia Inquirer, that versatile publication, which pleads for economy in Government one moment and in the next urges the construction, at public expense, of a $93 million, 40-foot upper Delaware River Channel, thinks it is all wrong for the Army engineers to ask that the United States Steel Co., which would be the principal beneficiary of the channel project, assume a substantial portion of the cost.

We call attention to the fact that the United States Steel Co., in connection with its farflung plan to bring Venezuelan iron ore to the United States, recently dredged a channel over 100 miles long in the Orinoco River at its own expense.

The December 14 issue of Time magazine carries an article on Venezuela which lists various construction and engineering projects recently completed in that rapidly developing country. Among the improvements noted is: "A 170-mile dredged channel in the Orinoco, built (and paid for) by the United States Steel to let ore ships reach the upriver iron mines, but destined to open southeast Venezuela to commerce."

If the United States Steel Co. was willing to spend the vast sums required to dredge the Orinoco River in order to get its ore ships down to the sea, why should it expect the taxpayers of the United States to put up millions of dollars to dredge the Delaware in order to facilitate bringing its Venezuelan ore to its new Fairless works, which it chose to establish near the head of navigation?

It is a matter of fact, which everyone living along the upper Delaware knows, that the present 25-foot channel is serving the navigational needs of this region very well. The present authorized depth of 25 feet means 25 feet at mean low water. As the range of tide in the upper Delaware is about 6 feet, our 25-foot channel becomes a 31-foot channel at high water.

This means that good-sized oceangoing freighters can and do navigate the upper river at the higher stages of the tide.

Hundreds of thousands of tons of foreign iron ore have been brought up the Delaware to the Fairless works since the plant started operations. This ore is being transported at present largely from Peru, as the Venezuelan shipments will not begin until after the first of next year.

Vessels of the Liberty class and similar types are being principally used in the service. These ships are of about 4,300 net registered tonnage, have an overall

length of about 440 feet and a cargo-carrying capacity of about 10,000 tons. Fully loaded they have a draft of about 28 feet.

The present practice is to bring these ore-laden ships, fully loaded, to Philadelphia, where they are docked at railroad piers and some 3,000 or 4,000 tons of cargo discharged, loaded into cars, and shipped by rail to inland steel mills. This removal of cargo lightens the vessel sufficiently to enable her to navigate the upper river to the Fairless works where the bulk of the cargo—usually 6,000 to 7,000 tons—is discharged. These freighters are passing up and down the river every few days and have become familiar sights to the residents of the Delaware Valley.

This looks like a very practical system, which should assure the United States Steel an ample supply of iron ore. It is quite likely that, with a deeper channel, enabling vessels of the largest type to ascend the river to the Fairless works, the transportation costs to the steel company might be somewhat reduced. But is it reasonable to expect the taxpayers of the country to put up this stupendous sum merely to enable the United States Steel to reduce its transportation costs and thus enhance its profits? Is this in accordance with the principles of American democracy and the free enterprise system?

The argument is being advanced that the 40-foot channel, if constructed, would be available for use by anyone. That is true enough, of course, but it is equally true that there is no industry on the upper Delaware other than the United States Steel which would be in any position to make use of the extraordinarily large type of vessels for which a 40-foot channel would be required. The present water transportation needs of this area are being adequately served with the existing channel, which is readily navigable by seagoing vessels of the size and type which carries the bulk of the world's commerce.

BRISTOL, PA., *May 20, 1954.*

Re Senate bill No. 2317. Hearing May 13, 1954.

SENATE PUBLIC WORKS COMMISSION,
Senate Office Building, Washington, D. C.

GENTLEMEN: I understand that the above hearing has been extended until May 21, and I would like to go on record as personally opposing the deepening of the Delaware River Channel to 40 feet, unless I am assured of reimbursement for any damage to my real estate caused by the deepening of the channel.

The ore boats have been running to the Fairless plant for several months, and I certainly have no objection to river traffic of this type. However, I am very much convinced that my property will be damaged if the proposed deepening of the channel goes through, as my house is located approximately 25 feet from the high water mark. I do not know the distance to the channel but when the boats go by it seems to be very close.

I will be grateful for any consideration that I may be able to receive.

Very truly yours,

C. DONALD MOYER.

LIST OF ORGANIZATIONS, TOWNS, AND INDUSTRIES WHO ARE IN ACCORD WITH THE DELAWARE RIVER VALLEY ASSOCIATION

Borough of Riverton, Riverton, N. J.
Borough of Delanco, Delanco, N. J.
Township of Edgewater Park, Edgewater Park, N. J.
Township of Florence, Florence, N. J.
Andalusia, Bucks County, Pa.
Anchor Yacht Club, Bristol, Pa.
Bristol Yacht Club, Bristol, Pa.
Capital City Yacht Club, Trenton, N. J.
Columbia Yacht Club, Philadelphia, Pa.
Delaware River Yacht Club, Philadelphia, Pa.
Farragut Sportsmen's Association, Camden, N. J.
Forrest Hill Boat Club, Cinnaminson Township, N. J.
Pennsylvania Yacht Club, Croydon, Pa.
Quaker City Yacht Club, Philadelphia, Pa.
Red Dragon Canoe Club, Edgewater Park, N. J.
Riverside Yacht Club, Essington, Pa.
Riverton Yacht Club, Riverton, N. J.
Tri-State Yacht Club, Essington, Pa.

Wissinoming Yacht Club, Philadelphia, Pa.
Manhattan Soap Co., Bristol, Pa.
Florence Pipe Foundry & Machine Co., Florence, N. J.
United States Pipe & Foundry Co., Burlington, N. J.
Riverside Metal Co., Riverside, N. J.
Delanco Channel Committee, Delanco, N. J.

The above list of organizations does not include the many private individuals who oppose the dredging of the 40-foot channel.

Dr. HAROLD J. WINKELSPECHT,
Chairman, Board of Directors.

CONSTITUTION AND BYLAWS OF THE DELAWARE RIVER VALLEY ASSOCIATION

ARTICLE I. NAME

This organization shall be known as the Delaware River Valley Association, and is an unincorporated association.

ARTICLE II. OBJECTS

The objects of this association shall be:

(*a*) To seek the enactment of all laws and regulations needed to promote the proper development and protection of the Delaware River and its adjacent land areas, to maintain and improve them so that "the greatest good for the greatest number" may be gained through the fullest possible utilization of the Delaware River and its adjacent land areas as a natural resource.

(*b*) To collect and appraise all obtainable data regarding the improvement, development and uses of the Delaware River and its adjacent land areas, including findings of the Corps of Engineers, United States Army, and other facts dealing with questions of: Waterway transportation; industrial, residential, and recreational development; conservation of wildlife and allied and related subjects.

(*c*) To disseminate among as many people of the area as possible the knowledge so collected and prepared through the columns of the public press and other avenues of publicity—to the end that the public may be educated and informed regarding the importance of proper development of the Delaware River and its adjacent land areas and the benefits resulting therefrom.

(*d*) To determine such policies as may be formulated in the interests of the Delaware River and its adjacent land areas, as well as endorse or oppose any projects, proposed by other organizations, which affects the Delaware River and its adjacent land areas.

ARTICLE III. MEMBERSHIP

The membership of this association shall consist of: Commercial, industrial, and kindred organizations; recreational, sportsmen, and civic associations; municipalities; State, county, or municipal agencies; corporations, companies, and individual citizens situated in the adjacent land area of the Delaware River, who shall contribute to the support and prosecution of the objects of the association.

All members shall pay their proper dues in accordance with the schedule of dues set forth in these bylaws.

All applications for membership in this association shall be submitted to the membership committee in writing and upon approval of the committee be notified by the secretary.

ARTICLE IV. OFFICERS

The officers of this association shall be: president, vice president, secretary, treasurer, and a board of directors of 10 members.

ARTICLE V. ELECTIONS OF OFFICERS

The president, vice president, secretary, and treasurer shall be elected to serve for a term of 1 year by motion and majority vote of those present at the annual meeting, and each shall be a member of the board of directors.

The 6 members of the board of directors, other than the officers, shall be elected by motion and majority vote at the annual meeting to serve for the following terms: 2 to serve for 1 year, 2 to serve for 2 years, and 2 to serve for 3 years. Subsequent directors shall be elected for a full 3-year term.

ARTICLE VI. DUTIES OF OFFICERS

The president shall conduct the meetings of the association, appoint the members of all committees, and serve as an ex officio member of all committees.

The vice president shall assume the duties of the president in his absence.

The secretary shall keep the records of the association, record the minutes of the meetings, handle the correspondence, and sending of meeting notices to the members.

ARTICLE VI. DUTIES OF OFFICERS

The treasurer should handle the funds of the association, collect the dues, pay bills when authorized, keep the books for the association with records of income and expenditures, and render reports on finances at the regular meetings.

The board of directors shall receive reports and recommendations from all standing and special committees, the treasurer, and the secretary. It shall considered reports of committees and may approve or disapprove thereof, but shall have no authority to alter these reports but will bring them to the attention of the association with its recommendation as to their disposition. It shall have full authority to act for the association when an emergency arises and prompt action is necessary. It shall approve or disapprove any recommendations made by the treasurer as to expenditures.

The board shall elect a chairman thereof, who shall have such duties as usually devolve upon such office.

Vacancy in office occurring between elections shall be filled by the board of directors.

ARTICLE VII. MEETINGS

The association shall meet at such time and place as may be designated by the board of directors.

COPY OF RESOLUTION ADOPTED BY DELAWARE VALLEY IMPROVEMENT ASSOCIATION AT A MEETING HELD MARCH 23, 1953

Resolved, That this association oppose the deepening beyond the presently authorized depth as of this date of the channel of the Delaware River between Philadelphia and Trenton because:

1. A deeper channel is not required for the present or foreseeable future development of the area. The plant of the United States Steel Corp., the only organization to benefit by such a channel, is now in existence and operation. Other industries are locating in the area—most of them adjacent to railroads rather than to the water. Since the 25-foot channel was ineffectual in developing enough traffic to justify its existence, it is logical to assume that further deepening of the channel will be equally ineffectual.

2. Construction of the proposed channel would be a subsidy to a large corporation and an unwarranted use of the taxpayer's money.

3. National defense is not involved. In locating the plant at Morrisville, the steel company knew it could operate if the channel project were not approved. The difference is that it will have to pay slightly more for transportation from Philadelphia to Morrisville by rail or normal waterborne facilities. In any event, the channel would not be completed in time to be of any use in the present emergency.

4. Competent industrial and State engineers have testified that dredging and blasting will, as indicated by past experience, result in pollution of the underground water supply. This damage would be irreparable and injurious to the economic development of the region.

5. Competent industrial and State engineers have testified that there is strong likelihood of further salinity intrusion. This damage would likewise be irreparable. It is virtually impossible to correct salinity. Salinity intrusion would be harmful to industrial plants; would ruin the domestic water supply; would threaten the oyster industry, and would have other harmful effects.

6. Engineers believe that the blasting necessary to remove the enormous quantity of rock will damage sewerage plants and lines, water mains, walls, and foundations.

7. Engineers are agreed that the banks, seawalls, pier foundations, and other structures will be undermined by slippage and erosion.

8. Further filling of flats and shoal places where flood water can expand will result in higher levels during freshets and abnormal tides, and this will result in the flooding of many areas, including all tidal tributaries, that are not pres-

ently subject to flooding; and will increase the damage occurring in present flood areas. This has been demonstrated by the substantial increase in the height of such tides since the completion of the 25-foot channel.

9. Disposal of rock, gravel, and sand will be unsightly and will ruin the area for residential purposes as well as for wildlife conservation, fishing, and recreational purposes.

The involved area is developing industrially without dependence upon the channel. Since most of the threatened damage would be irreparable, the problem of compensation, even though assured by State or Federal statutes providing a specific remedy and a specific appropriation is secondary. For that reason we do not believe that we stand in the way of progress by total opposition to the channel.

BRISTOL, PA., *May 21, 1954.*

Re Senate bill No. 2317.

HON. EDWARD MARTIN,
Senate Public Works Committee,
Senate Office Building, Washington, D. C.

DEAR SENATOR MARTIN: Our attention has been called to a hearing held by the Senate Public Works Committee on May 13 relative to the program for deepening the Delaware River channel between Philadelphia and Trenton. We understand that, due to the brief notice of the hearing, your committee has agreed to receive the comments of interested parties by letter report.

Our plant No. 1 property in Bristol Borough is located along the river and has a frontage of 2,400 feet along the river bank. The Army Board of Engineers has recognized that this area may require shoreline protection and has recommended that appropriations be set aside for a bank-stabilization program. We are concerned, however, not only with erosion and ground slippage caused by cutting a new channel but also by damages that may be caused by the wash from heavy vessels using the channel. We are also concerned with the loss of lateral ground support and plant settlement that may be caused by any of the activities undertaken in the creation or use of the proposed channel. We, therefore, feel that the proposed legislation should provide that all necessary protective measures must be taken to preserve the property of abutting landowners and that such owners shall be idemnified for any and all damages which are attributable to the creation and intended use of the proposed channel. As we have previously indicated, we intend to reserve all our rights in law or equity against any and all parties who may be responsible for injury to our property.

The above points were previously raised in a general fashion by a letter of our vice president, Mr. S. D. Hackley, to the burgess of Bristol Borough dated January 25, 1952, which letter was introduced by Senator Duff at the hearing held by the Army Board of Engineers on February 11, 1952, and which appears on page 21 of the transcript of said hearing.

Very truly yours,

KAISER METAL PRODUCTS, INC.,
F. H. BECHILL, *Vice President.*

MANHATTAN SOAP CO., INC.,
Bristol, Pa., May 20, 1954.

Re Senate bill 2317, hearing of May 13, 1954.

SENATE PUBLIC WORKS COMMITTEE,
Senate Office Building, Room 412,
Washington, D. C.

GENTLEMEN: I am a property owner living on the bank of the Delaware River just above Bristol Borough in Bucks County. I have just received word that a hearing was held last week on a bill to provide for deepening the Delaware River to 40 feet from Philadelphia to Trenton. Naturally, since my home could be affected, along with my other interests in lower Bucks County, I have carefully studied this proposed project as it has been pushed so energetically, and apparently effectively, by the United States Steel Co. and the United States engineers.

These studies show that there are many ramifications to the proposal and I should like to go on record with the ones I consider to be the most important.

1. This bill, if passed, represents special legislation amounting to a direct Government subsidy to the United States Steel Co. This is admitted frankly

by the United States engineers, as the Philadelphia Evening Bulletin quoted Col. Walter Krueger, Jr., in their January 26, 1954, issue: "That a 40-foot channel on the upper Delaware River will be of use only to the United States Steel Co.," and "at the present and in the foreseeable future no other shipping will have need of so deep a channel." This is the reason the United States engineers requested that local interests (United States Steel) pay a part ($18 million) of the cost.

2. Other than United States Steel, there is apparently no need for even the present 25-foot channel because it has been used for many years for barge traffic only. In fact it was allowed to shoal up to depths of 16 or 18 feet because of nonuse until recently when United States Steel started to bring ships of ore to its plant, but suddenly—if one can believe the reports—there is or will be a tremendous demand for at least a 35-foot channel by other industries. Actually the writer can find no industry at present who can use more than the present 25 feet deep channel.

There is talk of a much-needed Port of Trenton requiring at least a 35-foot channel, but with Trenton within 25 miles of Philadelphia and 75 miles of New York, with first-class rail and highway transportation between, is it actually needed or is it just another talking point for deepening the Delaware?

With the port of Philadelphia bemoaning the expected loss of business to the future St. Lawrence seaway, does it make sense to hear them urge for still further loss of business to Trenton?

3. Another phase of the project is the economics used in showing a desired saving, and three points should be looked into carefully:

(*a*) The tonnage of ore on which most of the saving is based includes more than what will be required at the Fairless plant. The difference is ore to be transshipped to United States Steel's other plants, which could be more economically loaded at Baltimore or at the new Pennsylvania Railroad ore dock in Philadelphia, using empty coal cars from the coal region of western Pennsylvania or West Virginia on a return trip.

The tonnage which is to be used at the Fairless plant even after tripling its present size, is only 50 or 60 percent of the total tonnage the United States engineers show in their report (12 million tons a year) so the actual saving should be based on this reduced volume.

(*b*) The cost of maintenance of the upper 30 miles of channel is listed at around $1,500,000 per year, while the United States engineers say that it will take $3,200,000 per year to keep a shorter channel (from Philadelphia to the bay) clear. Is it reasonable that it will cost so much less to clear the upper longer channel which is the source of the silt to be removed?

(*c*) Today United States Steel Co. is receiving almost daily shipments of ore at its Fairless plant by approximately 6,500-ton freighters. Certainly there will be little saving in delivery of this ore with a deeper channel. Was this volume of ore deducted from the total in arriving at the savings supposed to be made by a 40-foot channel?

4. The question of increased pollution of the upper tidal Delaware is of tremendous importance, since nearly every community along its banks including Philadelphia, depend on it for their potable water supply. At present, during prolonged droughts, this stretch of river flows so slowly that it takes over a month for water entering the tidal basin at Trenton to reach Philadelphia. This results in a high concentration of pollution requiring drastic treatment by the water companies. A deeper and wider channel means more water and a longer time for it to become stagnant and polluted requiring more water from the upper Delaware to keep it flushed out.

With more big industries requiring a 40-foot channel—chemical, petroleum, or steel—which are known to create additional pollution, the situation will just become that much worse.

Without some assurance of keeping the tidal section flushed out by a steady flow of water from the upper Delaware, such as with the proposed Incodel dams, a deeper channel can only make a worse cesspool out of this source of drinking water.

5. The United States engineers say they will not dig a 40-foot channel unless local interests guarantee to take care of all damage claims that may arise. This positive stand would indicate that the United States engineers expect damage to be done but want no part of the responsibility for the kind of a job they do. To date no one has stepped in to accept the bill for damages. Does this mean that there will be no protection from damage for the property owners along the Dela-

ware? Is this American justice—to provide an individual corporation a means of saving money at the expense of the taxpayers and at the same time tell the property owners that they must accept any damage to their property with no legal recourse?

To summarize: this project to deepen the Delaware River to a depth of 40 feet from Philadelphia to Trenton means:

1. Special legislation to subsidize one corporation.
2. There is no real need for it by anyone—not even United States Steel Co.
3. It is economically unsound.
4. It means the tidal Delaware will become more of a cesspool than it is now during extended droughts.
5. Damage claims have not been provided for.
6. The bill should not be passed.

Since I was not notified of the Senate hearing, I hereby request that this be included as part of the testimony of May 13.

Very truly yours,

H. N. CROOKER

BROTHERHOOD OF RAILWAY AND STEAMSHIP CLERKS,
FREIGHT HANDLERS, EXPRESS AND STATION EMPLOYEES,
Philadelphia, Pa., May 24, 1954.

Hon. PRESCOTT BUSH,
Chairman of Subcommittee, Public Works,
Senate Office Building, Washington, D. C.

MY DEAR MR. CHAIRMAN: On behalf of the membership of our organization and as representatives, we desire to express our support on behalf of Senate bill No. 2317.

While we are cognizant of the fact that this bill is designed to advance the interests primarily of navigation, which might tend to give advantage to water transportation, we nevertheless believe this bill warrants our support.

We also believe that the deepening of the Delaware River channel to a sufficient depth to insure the safe navigation facilities to oceangoing vessels as far inland as Trenton, N. J., will tend to develop much of the available area in what is known and referred to as the Delaware Valley.

It is because of our firm belief that the provisions of the bill will tend to contribute to the further development and expansion of many of the already available facilities in the general area of the Delaware River Basin, that we are supporting this bill.

It is, accordingly, our desire to urge your support in favorably reporting out, by your committee, Senate bill No. 2317.

Sincerely yours,

JUDSON SWAN, *General Chairman.*

BEVERLY, N. J., *May 25, 1954.*

Re Senate bill 2317.
SENATE PUBLIC WORKS COMMITTEE,
Senate Office Building, Washington D. C.

GENTLEMEN: I am a resident of Edgewater Park, N. J., and my property goes down to the high waterline on the Delaware River and I own the riparian grant which is in front of my property extending out to the riparian line in midstream. I note that you are considering the dredging of a 40-foot channel from Philadelphia to Trenton to replace the 25-foot channel presently existing, and I would like to go on record as opposing this particular measure for the following reasons:

1. When the 25-foot channel was dredged by the PWA in or around the year 1934, about 75 feet of my seawall which is 105 feet long total slid into the river along with a large amount of the embankment. The Government declined to repair it claiming it was the duty of the State. The State declined to repair it stating they did not dig the channel and it was therefore the function of the Federal Government. The township compelled me to repair it and in the end I had to do so. It cost me $2,000 which I could ill afford to pay in 1934 when money was so hard to get. I have not yet received any indication from anybody that had a similar situation transpire, that the damage will be collected from the agency responsible.

2. The United States Army engineers claim that they have a disposal basin large enough to accommodate all of the material that they plan to dredge out of

the channel. I think they are mistaken. It will be necessary for them to put that material some place and when a like situation arose in the next town down the river from us namely, Delanco, they formed an island in the middle of the river. It was questionable whether this island was on the Pennsylvania side or the New Jersey side, and this island became a rendezvous for the river thieves and pirates who could not be arrested except by officers of both States. This island became a public nuisance and was finally removed by the citizens of Delanco; I believe at their own expense. If it is necessary to dispose of this material other than in the disposal areas presently selected, I do not want such an island formed in front of my property. I am afraid that I do not have the influence with Congress to prevent such an island being formed if the Army engineers decide to do it, because they are a law unto themselves and I am therefore opposed to the channel.

3. If any spoil is deposited along the bank of the river fronting on my property and covering my riparian grant, I want the privilege of supervising its disposition so that it may be formed into usable land not into a mud flat which will breed mosquitoes. In addition to that, I think I am justified in requesting that any land which is usable on my riparian grant be deeded to me, since I have no part in its formation. I understand that there is considerable question as to the rightness of this claim, and for that reason, I am opposed to having any land formed in front of me and I am afraid they will have to form that land in front of me in order to get rid of the spoil.

4. The Delaware River as it exists now, is adequate for all except the heaviest boats which have occasion to furnish the new Fairless plant of the United States Steel Corp. We presently have 1 or 2 boats using this channel every day as it is now. The channel is dredged to a 25-foot depth at mean low water and we have a 6-foot tide which means at high water we have 31 feet. This is deeper than the proposed St. Lawrence Waterway. The only party who can benefit from this deeper channel is the United States Steel Corp. and I wish to protest the requirement of paying taxes so that the United States Steel Corp. can be subsidized with a 40-foot channel.

I am afraid that regardless of what I may say in the matter, the channel will be dredged, but if it is dredged, I would appreciate action on your part to repair at no cost to me such damage as may occur on my banks and to replace my seawall if it washes out and my embankment if it also slides into the river. In addition, I would like the privilege of supervising the disposition of any spoil which is placed on my riparian grant. I would also like title to be given me for any land which is formed as a result of the dredging on my riparian grant. I would also like your assurance that a mud flat will not be formed on my riparian grant as a result of the disposition of the spoil below low water.

Yours very truly,

RALPH M. SHAW, Jr.

R. D. WOOD CO.,
Philadelphia, Pa., May 21, 1954.

Re Senate bill No. 2317.

Hon. EDWARD MARTIN,
Chairman, Senate Public Works Committee,
Senate Office Building, Washington, D. C.

DEAR SENATOR MARTIN: Last week on rather short notice, a hearing was held in Washington before the subcommittee, dealing with the subject bill which would appropriate funds necessary to construct a deeper channel in the Delaware River from Allegheny Avenue, Philadelphia to the Fairless works of the United States Steel Corp., and Trenton, N. J.

As we have had a deep interest in this project since its inception, it is with some reluctance we express the thought that sufficient notice of this hearing was not given to varied interests in time for their participation, to the extent they may have deemed appropriate.

We were in attendance at the initial hearing before the Army engineers, at Trenton, N. J., on March 14, 1951, and a number of other hearings held since that date, and particularly, one before the Board of Engineers for Rivers and Harbors, at Washington on February 11, 1952.

As to the former hearing, we attach copy of our communication of November 14, 1951, to Colonel Cruse, and in connection with the latter, we attach copy of our communication of February 8, 1952, which are self-explanatory, together with a copy of the Florence township letter of February 6, 1952, referred to therein.

Some of the issues have been resolved, but not those dealing with responsibility for public and private property damage.

Appreciating your position on the affirmative side of this proposed project, we feel it is proper to acquaint you with our views as a private industry.

In that connection we reiterate what we have said many times in the past; namely, it is not the policy of this company to stay progress, and we are not opposed to the construction of the channel per se, but the issues as to responsibility for damage should be definitely resolved by the proper authorities before any work is undertaken.

Yours very truly,

FLORENCE PIPE FOUNDRY & MACHINE CO.,
GEO. M. LEEDOM, *Traffic Manager.*

FEBRUARY 8, 1952.

BOARD OF ENGINEERS FOR RIVERS AND HARBORS,
Washington 25, D. C.

GENTLEMEN: Pursuant to the public hearing, before you Monday the 11th instant as outlined by your communication of January 11, for review of the report of the division engineer regarding the advisability of extending the 40-foot channel in the Delaware River to Trenton, N. J., we desire to submit our views.

By a communication dated the 6th instant, Florence township authorities acquainted you with their views and position in the matter to which we subscribe in toto.

The taxpayers including industry of that township should not be asked to assume costs that, by the report under review, presently reflect more than 15 percent of the total tax assessment.

Issues of the gravest importance have been raised—salinity, pollution of the potable water supply, damage to shore and high banks both public and private, and the placing of responsibility for the necessary expenditure of funds incurred from these factors.

The report before you for review is the result of a resolution of the Committee on Public Works of the United States Senate, adopted April 18, 1950, and resolution of the Committee on Public Works of the United States House of Representatives, adopted May 21, 1951.

At the time the Senate resolution was adopted, a companion resolution was also adopted authorizing reexamination of Army engineers' prior surveys of reservoir projects in the upper Delaware Basin above Trenton, N. J., commonly known as the Incodel project.

It is our understanding that no work has been performed in connection with this latter survey and pending its completion and the engineers' report thereon, we do not believe the channel project should be undertaken.

Our plant, comprising approximately 68 acres, is located in Florence township, New Jersey, on the eastern shore of the Delaware River, and includes 6,000 feet of river front on which is constructed a 900-foot wharf with electric crane facilities and other appurtenances.

Since the construction of the 25-foot channel, a 50 percent deterioration has taken place in one retaining wall fronting on a section of our shore and certainly that wall is not going to be materially benefited by the construction of a 40-foot channel.

From past construction on our property we know of one existing quicksand strata and are fearful that the removal of retaining soils will result in collapse of that strata, causing serious injury to at least one of our shops.

Further, we feel the dredging necessary, including rock excavation, may have adverse effects on the foundation of some of our other buildings, particularly with respect to alinement as well as the machinery installed in those buildings, and damage to our dock facilities.

As an industry we will not derive any benefit insofar as transportation is considered in the construction of this channel and under the circumstances we do not believe we should be asked to absorb any of the damages that may result from its completion.

It has never been the policy of this company to stay progress, and we are not opposed to the construction of the channel per se, but we do feel the grave issues that must have your consideration should be resolved and the responsibilities assumed by the proper authorities before any works is undertaken.

Yours very truly,

FLORENCE PIPE FOUNDRY & MACHINE CO.,
GEO. M. LEEDOM,
Traffic Manager.

FEBRUARY 6, 1952.

BOARD OF ENGINEER FOR RIVERS AND HARBORS,
Washington, D. C.

GENTLEMEN: The township of Florence, a municipality in the county of Burlington, N. J., is situated on the easterly shore of the Delaware River, directly south of Newbold's Island, and shown on the Corps of Engineer's survey of 1951 of the Delaware, sheet 7 and 8.

The inhabitants of the township of Florence are deeply concerned with the possibility of damages which may result if the proposed project for the deepening of the channel, from its authorized depth of 25 feet and width of 300 feet is constructed to a depth of 40 feet and width of 400 feet. There are listed below four major items, in which the township is vitally interested.

1. *Salinity.*—The tests made with the Vicksburg model, as constructed by the Corps of Engineers, may prove that salinity intrusion will not occur to a greater distance up the river than it now extends as a result of the deepening of the channel to 40 feet, but it must be pointed out that these tests were run under normal flows of fresh water from the headwaters of the Delaware River. It is only logical to assume that the distance of intrusion will increase in proportion to the decrease of fresh water supply from the Delaware and its tributaries above Trenton.

It is admitted that the deeper the channel, the greater becomes the opportunity for recharge of the Raritan strata from the river. The river water must therefore be kept free from salinity and pollution.

Florence township is fortunate in having an excellent municipally owned water supply system from a field of wells driven to the Raritan strata and any disturbance to the supply of this strata would result in disaster to the inhabitants of the township. It is difficult to understand that if an expenditure of $100 million is justified for the benefit of industries and navigation, why is it is not also justified that at least an equal amount of moneys be appropriated to augment the funds to be furnished by the States of Pennsylvania, New Jersey, New York, and Delaware for the promotion of the Incodel project in order to protect the water supply system for the inhabitants of the municipalities bordering on both shores of the Delaware. It is agreed by many authorities that if the two projects were coordinated, the control of the flow of water in the Delaware would eliminate the fear of extended salinity intrusion and since the Incodel project also controls the purity of the effluent from municipal sewerage plants the purification of the stream would also be greatly improved.

2. *Revetment and bank stabilization.*—In the Army engineer's reports of December 21, 1951, reference is made to the stabilization of the high banks at Florence for a distance of approximately 4,000 feet. It is gratifying to note that at last the Army engineers recognize the possibility of damage at this point. The township has expressed in writing to the Corps of Engineers in more than one instance that as a direct result of the deepening of the channel from 18 feet to 25 feet, the high banks were sliding toward the river and, in each case when the Army engineers attention was called to this condition responsibility was denied. The slippage is a very gradual process but today the shoulder of the county roadway, at the highest part of the bank, has dropped below the pavement of the main road as much as 4 inches.

Florence township has a shoreline of 4½ miles, approximately 2½ miles of which consists of high banks and bluffs of an elevation of 20 to 80 feet above high water. Portions of these banks are protected with seawalls of varying heights up to 10 feet and all of this 2½ mile shoreline is directly in front of and adjacent to residential property. It is estimated by the Army engineers that 500,000 cubic yards of earth will be required to be removed from these banks, to relieve the surcharge, at a cost of $450,000. It is suggested that to this amount should be added the following: (1) The cost of at least seven recently constructed homes at an average value of $25,000, which it would be necessary to condemn and move to new locations, amount $175,000. (2) The loss to the township of assessed valuation of the real estate removed $56,000. (3) The construction of a large portion of the county highway and the utilities contained within its limits, $75,000. (4) The depreciation in value of the remaining real estate because of the relocation of the county highway, $25,000. The cost of these damages plus the amount of construction as estimated by the Army engineers would amount to $781,000. This amount is classified in the report as non-Federal cost. The township of Florence is not only unable to finance a project of this magnitude, but there is little doubt that the taxpayers would refuse to authorize such an expenditure.

In order to determine the extent of the damage if the banks were terraced as suggested by the Army engineers on a slope of 1 foot vertical and 2½ feet horizontal, with a minimum of 3 terraces, the township committee has obtained from its engineer a survey and detailed topographical map of 1,000 feet of the riverfront shore at the most critical location, namely, from Pine Street to Oak Street and from the high water line southwardly to Fifth Street. This plan shows the location and elevations of all dwellings and buildings facing Front Street. Should this project for the deepening of the channel be approved for construction, the survey and plan will be completed along the entire length of the township shore, including foundations for buildings and machinery at both the Florence Pipe Foundry & Machine Co. plant and the John A. Roebling's Sons Co. mill, which are situated in the township. Results of these surveys will be filed with the United States Army Engineers as a permanent record and will be checked periodically to determine variations in elevation and alinement with a view in mind to determine the responsibility of such variations.

In order to avoid the possibility of damage to the property along the shoreline of Florence Township, it is suggested that the Army engineers study the advisability of (*a*) swinging the Florence range to the north 2½ degrees, using the north end of Church range as a pivot; (*b*) move the Roebling range 400 feet west and parallel with its present course to intersect with the present Kinkora range; (*c*) fill the easterly slope of the present channel with excavated rock material to form a toe for the slope of the easterly bank of the river. It is estimated that to construct this new alinement of the channel will require an additional 1,250,000 cubic yards of dredged material and at a cost of 60 cents per cubic yard, as estimated by the Army engineers, this amount would be less than estimated damage which would occur if the banks were terraced as suggest in the report.

3. *Protection of existing industries.*—Florence Township is primarily an industrial community and is, therefore, greatly interested in damages which may occur to the foundations of buildings, machinery, and dock facilities, which now exist in the two main industries operating in the township. Attention has been called to the Army engineers that stratas of quicksand exist in the vicinity of these plants, having been encountered at times of construction. It is suggested that the Army engineers thoroughly investigate these alleged conditions and that every effort be made to stabilize the present structures in order to relieve the management of any unnecessary expense resulting from the proposed construction of the channel.

4. *Paragraph No. 79 (Engineer's Report 1951)*—Individual property owners and industries fronting on the river bank have expressed great anxiety as to the interpretation of the statement contained in paragraph No. 79 as follows: "It is considered possible that, after the channel has been deepened and widened, a requirement for some protection for shorelines and shoreline structures may develop. This is regarded as work that should be accomplished by and at the expense of local interests."

It is admitted that normal erosion of the shoreline and disintegration of structures is the responsiblity of the owners but accelerated destruction and settlement of the shore caused by increased wave action or excavation too close to the banks, is definitely the responsibility of others. Unless ways and means can be provided to protect the property holders and relieve them of expense of unnecessary damage, they are compelled to vigorously oppose the deepening of the channel.

In conclusion it should be stated that the township committee of the township of Florence is not opposed to the dredging of the channel as such. It is admitted that the project would undoubtedly increase the attractiveness of the Delaware Basin to industry and development and any expansion in this area would benefit the community to an unlimited degree. However, unless the township can be assured that the underground water supply will not be damaged and that efforts will be made to coordinate the Incodel project with the deepening of the channel and that the banks along the township will be protected by moving the channel westwardly as suggested in this report, there is no other course to be taken but for the township to definitely oppose the project in its entirety.

Respectfully submitted.

MICHAEL CHANTI,
Chairman, Florence Township Committee.
B. HAROLD WILLS,
Florence Township Engineer.

Attest:

CHARLES B. GREEN, *Township Clerk.*

NOVEMBER 14, 1951.

Col. R. E. CRUSE,
Corps of Engineers, United States Engineers Office,
Philadelphia, Pa.

DEAR SIR: We have been solicited to advise you of our position with respect to the proposed extension of the Delaware River 40-foot channel project to Trenton, N. J., including Morrisville, Pa., to accommodate amongst others the Fairless plant of United States Steel Co.

It is a moot question as to the benefits we would derive if the project were completed as the present and proposed channels are a considerable distance from our wharf and a great deal of dredging would be required to accommodate, at our present dock facilities, deep draft vessels.

The cost of dredging and essential improvements in our facilities together with the necessity of continually maintaining maximum depth at our dock would probably offset for some years to come any saving that might result if the channel were constructed.

During World War II, Delaware River commerce to and from our plant reached its barest minimum and it has never been recouped due largely to the disappearance of the former type of vessels that developed that commerce.

Under normal circumstances we handle about 60,000 tons annually at our dock on present channel depth and we seriously question that a deeper channel would reflect any material saving or increase the volume of traffic.

Your records will indicate from the hearing at Trenton held on March 14, 1951, that we did not endorse the proposed project and by the same token neither did we oppose it.

However, we propounded some very pertinent questions as to the possibility of damage to public and private property on the New Jersey shoreline arising from erosion and bank slippage that might follow, salinity, potable water supply, navigable waters, and disposal of spoilage, and we believe these queries should be resolved to the satisfaction of all concerned before the project is undertaken.

It is not our understanding that your office has compiled the customary engineer's report for publication and if it has, we should like a copy, but in any event it is presumed these numerous problems will ultimately have been properly dealt with therein.

Yours very truly,

FLORENCE PIPE FOUNDRY & MACHINE CO.,
GEO. M. LEEDOM, *Traffic Manager.*

BOROUGH OF RIVERTON,
Riverton, N. J., May 26, 1954.

Subject: Senate bill No. 2317, Delaware River Valley Association, protest on dredging of 40-foot channel in Delaware River.

SENATE PUBLIC WORKS COMMITTEE,
Senate Office Building, Washington, D. C.

GENTLEMEN: This letter is written to you by one who is interested in the aims of the Delaware Valley Association to cooperate in the sound industrial development of the Delaware Valley. As a member of borough council and as chairman of the sewer committee I have the responsibility of developing, in conjunction with our borough engineer, drawings and specifications for the erection of a sewage-treatment plant to eliminate the discharge of the effluent from the sanitary sewer lines into that river. This treatment plant is required by the State of New Jersey Department of Health and must be constructed immediately.

The outfall from our sewer collecting mains which now discharge into the Delaware River must be connected to an interceptor main which, of necessity, must be installed along the banks of the Delaware River. The location of this collecting main cannot be changed.

A marked-up zone plan of the borough of Riverton is enclosed and this is intended to show the proposed location of the interceptor line where it starts at the borough boundary continuing along the river bank to permit connections from properties now facing the Delaware River and also the outfall connections of the main underground sanitary sewer collection system for the borough.

The interceptor main is shown on the enclosed zone plan in red with the location of the sewage-treatment plant in green and you will observe this line is shown very close to the river and is protected from bank erosion by the stone wall

which in some cases is only 10 or 12 feet from the collecting or interceptor main location.

The elevation of this interceptor main is approximately the elevation of the foundation or footings supporting the river wall and the members of the Riverton Borough Council are extremely concerned about the problem of damage and undermining of the river wall by the action of waves or wash from the river caused by large ships using a deeper channel.

There is every reason to expect during a high tide condition when the river is close to the top of this wall the passing of a large ship will force the river water over the top of the wall starting serious erosion of the river bank which would result in a serious break in the wall. Action of this kind would expose our interceptor sewer line to the river which could result in an interruption of the entire sanitary sewer system of the borough. A break in this interceptor main would permit river water to enter the line resulting in the flooding of the entire treatment plant.

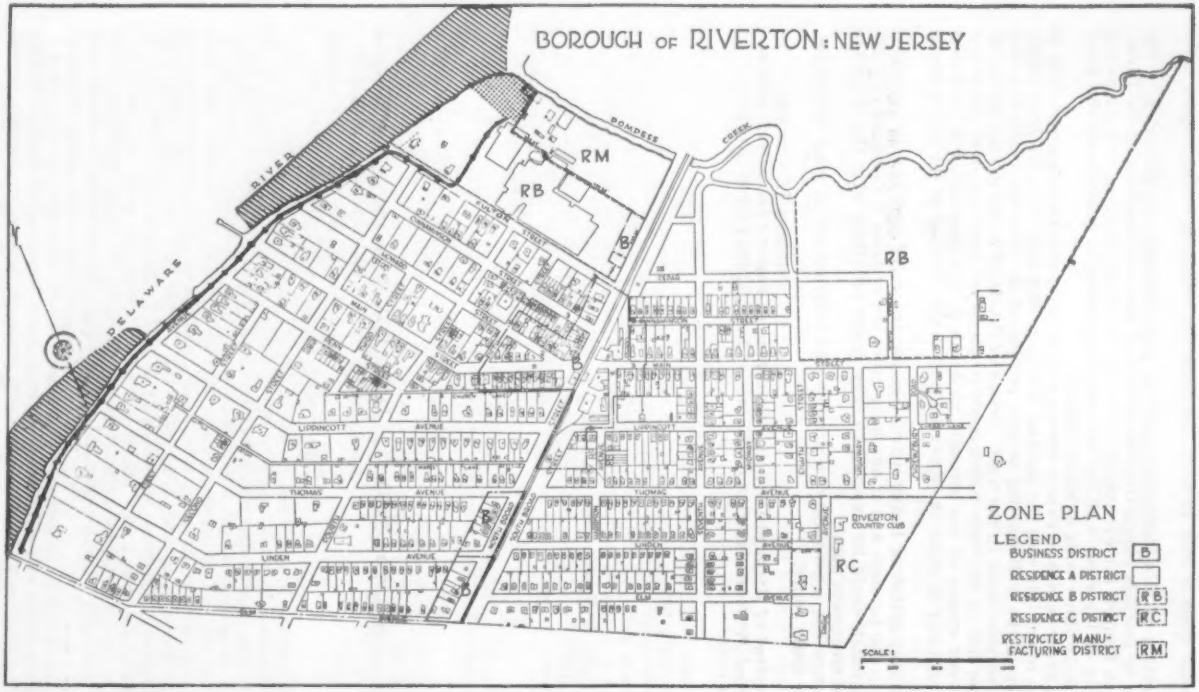
The frequent action of heavy waves against the river wall can be serious—expensive to the borough and if our interceptor sewer main is damaged as a result the borough could be exposed to very grave problems with the sewerage system and treatment plant.

I appreciate the opportunity to present this information to your committee.

Very truly yours,

CHARLES W. COWARD,

President of Borough Council, Chairman of Sewer Committee, Registered Professional Engineer, State of New Jersey License No. 2784.



Zone Plan of the Borough of Riverton Corrected to Show the Boundaries of all Zones as of July 1, 1949

AREA OF ACTION OF WAVES OF RIVER WATER
INTERCEPTOR MAIN
SITE OF SEWERAGE TREATMENT PLANT

DELANCO, N. J., *May 25, 1954.*

Re Senate bill No. 2317.
SENATE PUBLIC WORKS COMMISSION,
Washington, D. C.

GENTLEMEN: In reference to dredging the 40-foot channel from Philadelphia to the Fairless works, I strongly urge that full consideration be given to this misuse of public funds. The use of the taxpayers money to dredge this channel which will benefit a single corporation is entirely wrong, as in so doing it brings harm to those taxpayers furnishing the funds.

The Delaware River Valley has been the focal point for all types of recreation ever since the time of William Penn, and it should be continued and improved as an area for recreational outlet for the residents of its bordering states.

The writer is particularly interested in sailing activities, having competed in sailboat racing on the Delaware for many years, and is currently the commodore of the Red Dragon Canoe Club of Edgewater Park, N. J. The children of the writer, and of his many friends are also being taught to use the river for similar recreational purposes. The wildlife will become extinct, which will deprive the writer and thousands of other residents of the area, from the recreation of hunting and fishing.

To deprive the tens of thousands of residents of the Delaware River Valley from the recreational activities now enjoyed would mean to put more than twice as many cars on the roads to the various shore points, and to the Chesapeake Bay area. The writer leaves it to your imagination the resulting loss of life in automobile accidents each weekend.

The taxpayer does not enjoy the idea that his money should be used as a boomerang.

Very truly yours,

WM. ALLAN WOOD.

BEVERLY, N. J., *May 26, 1954.*

Re Senate bill No. 2317.
SENATE PUBLIC WORKS COMMITTEE,
Room 412, Senate Office Building, Washington, D. C.

GENTLEMEN: This letter is to protest the provisions of Senate bill No. 2317 for providing Federal funds to the extent of $96 million to deepen the present channel in the Delaware River from Philadelphia to the Fairless works at Newbold Island to a depth of 40 feet.

As a member of the Delaware River Valley Association, I am wholly in accord with the principals and policies of the association in its desire to cooperate in the orderly and sound development in the Delaware Valley. However, it is quite apparent that the funds to be used in the above project would be of primary benefit only to the United States Steel Corp. in that it would permit of their employing larger-sized ore boats without the expense of either reshipping their cargoes or utilizing smaller-load capacities.

Considering the drastic need for a balanced national budget and a reduction in the size of our Federal debt and considering many other requirements of benefit to the Nation as a whole, I cannot in good conscience support the expenditure of so great a sum and the probable expenditure of additional substantial sums in maintenance for so limited a purpose as the welfare of a single corporation.

It has been my understanding that the United States Steel Corp. has expended millions of its own funds dredging and maintaining a river passageway in South America for the purposes stated, and it is inconceivable that the American public should be expected to meet a similar expenditure from public funds. Therefore, I feel it incumbent upon me to register a strong protest against the promulgation of Senate bill No. 2317.

Very truly yours,

FRANK R. SHIPPEN.

BIBLE PRESBYTERIAN HOME,
Delanco, N. J., May 25, 1954.

Re Senate bill No. 2317.

SENATE PUBLIC WORKS COMMITTEE,
Room 412, Senate Office Building, Washington, D. C.

GENTLEMEN: I wish to express my opposition to the deepening of the Delaware River channel to 40 feet from Philadelphia to the Fairless works at Newbold Island.

I represent the Bible Presbyterian Home, Inc., which has property along the river in the town of Delanco.

We believe the present depth of the river is sufficient for the ore vessels now delivering materials to the Fairless steel works and are opposed to the use of $96 million of Federal funds, more or less, to be spent in deepening the channel. Why should the taxpayers bear the burden when the steel works would be the chief beneficiary?

We believe there are also dangers connected to deepening the channel which would be harmful to properties along the river.

Respectfully yours,

Rev. C. LAMAN, *Superintendent.*

DELANCO, N. J., *May 25, 1954.*

Senator EDWARD MARTIN,
Senator Public Works Committee, Washington, D. C.

To the HONORABLE SENATOR EDWARD MARTIN: Your committee is giving study to opening a 40-foot channel from Philadelphia to Morrisville plant of the United States Steel Corp.

I am a citizen of the State of New Jersey and a lifelong resident of Delanco, N. J., which is at the intersection of the Delaware and Rancocas Rivers.

This community before World War One was an important shad-fishing center. I have seen this industry destroyed and the river contaminated by industrial waste and oil slick.

I am opposed to the 40-foot channel for the following reasons:

(1) The very serious danger of making our fresh water supply which is obtained from the Raritan gravels, contaminated. Dr. Helgi Johnson, a renowned geologist, has forewarned both the Army engineers and communities bordering the Delaware that the Raritan Valley water supply became saline when the deeper channel was cut through in that valley. He pointed out to Colonel Kruger that salt water was heavier than fresh water and with the prospect of Incodel going into effect in the near future that the flow of fresh water over the Trenton rocks will greatly be reduced. Since our geological structure is similar to the Raritan gravels, we have excellent prospects of destroying the most valuable natural resource in this area.

(2) Those who advocate the 40-foot channel point to but one firm that it will benefit, namely the United States Steel Corp. Doesn't this tremendous expenditure for one corporation continue the dangerous trend of public expenditure to benefit a vested interest against public interest.

(3) The United States Steel apparently is not using United States bottoms at present time. Colonel Kruger of United States Engineers, when questioned at a public meeting at Riverton, N. J., if there was a ship afloat requiring a 40-foot channel acknowledged that he did not know of any. Thus it is apparent that there is no immediate need for a 40-foot channel.

The Philadelphia Chamber of Commerce and the Democratic administration who are always wanting to spend public money, raised the hue and cry against the Saint Lawrance water project which is but a 27-foot channel. This apparently is adequate for commercial carrying of ore.

The average tides of the Delaware have increased so that our present 25-foot channel at floodtide is at least 31 feet deep.

4. The encroaching damage to the shoreline of communities from Palmyra to Florence is a grave problem. The Army engineers place but little importance to this. Their primary interest is keeping the channel open for traffic. However as a lifelong resident of this valley I have observed that since the 25-foot channel was developed the shoreline has dropped more than 18 inches at my riverfront property in Beverly and Riverton. In Delanco private and public retaining walls have been undercut by the tides and have fallen causing cave-in of the banks and extensive damage to the waterfront: Thus any consideration your committee might make for expenditure for this channel should include reimbursement for private and public retaining walls that are being ruined by the washdown of the shoreline.

Kindly keep in mind there are engineers who have worked with the Delaware and know that there are conditions which you may not have under consideration.

A 40-foot channel means a 47-foot depth in order to maintain 40 feet, because of silting and sliding. The Raritan gravels are within 50 feet in spots to the ground surface. This may only leave six feet of compacted structure that will be undisturbed, and can easily let contamination filter through. There are also known to be underground springs that feed into the Delaware. There is a possi-

bility that these springs which feed into the Delaware can erode out pockets several miles from the river causing sinks where this may occur. It is known that such a spring exists off Crosswick Creek where years ago the Reeder Co. dredged wonderful white sand.

In conclusion all I can see in exploitation of this river valley is damage to fishing industry, contamination to the water, contamination to the atmosphere, and a possibility of ruining for posterity the one last great natural resource of clean, fresh, drinking water of the subsoils.

May you and your committee in consideration be guided to say "No," on any 35- or 40-foot channel.

Sincerely yours,

HERBERT G. HANNEMANN.

RIVERTON, N. J., *May 20, 1954.*

Re Senate bill No. 2317

SENATE PUBLIC WORKS COMMISSION,
Senate Office Building, Washington, D. C.

GENTLEMEN: As a resident of some 50 years on the Delaware River, I wish to enter my protest to the proposed 40-foot channel.

I, like many others, have had to contend with washed-out bulkheads, and the new proposal would greatly aggravate this situation.

The upper Delaware is a largely residential area with numerous fine homes and many yacht clubs, whose members enjoy its use for health, sport, and recreation. To change this, to me, is unthinkable.

Large ships are now using the present channel to Morrisville and I can see of no reason, with the new facilities in Philadelphia, why larger ones could not make the transfer there at far less cost than building and maintaining a 40-foot channel.

I should like to appear personally, but on account of health, I am unable to do so.

I do hope you will give some thought and consideration to us who live along and enjoy this beautiful river.

Sincerely,

WALTER K. WOOLMAN.

BRISTOL, PA., *May 27, 1954.*

Re Senate bill No. 2317.

PUBLIC WORKS COMMITTEE OF THE UNITED STATES SENATE,
Room 412, Senate Office Building, Washington, D. C.

GENTLEMEN: Farmers National Bank of Bucks County, Bristol, Pa., whom I represent, owns approximately 250 feet of land along the bank of the Delaware River in Bristol, Pa. We have been advised that Senate bill No. 2317, on which your committee held a public hearing May 13, 1954, is before you for your consideration and that this bill provides for the deepening of the channel in the Delaware River to 40 feet.

My client fears that the deepening of the channel to a depth of 40 feet may result in serious damage to its property on the bank of the river. If such damage should occur it would expect to be compensated by the United States of America for the same.

Very truly yours,

I. LOUIS RUBIN,
Attorney for Farmers National Bank of Bucks County.

THE PENNSYLVANIA RAILROAD CO.,
Philadelphia, Pa., May 26, 1954.

Hon. PRESCOTT BUSH,
Chairman, Subcommittee of Public Works Committee,
United States Senate, Washington, D. C.

DEAR SENATOR BUSH: It is understood that at the hearing before your subcommittee on May 13 there was general accord among the majority of the witnesses present that the Delaware River channel should be deepened to 40 feet from the Philadelphia Naval Base to Newbold Island and to 35 feet from there to the Trenton Marine Terminal.

As you no doubt know, we are constantly studying the development of industrial areas. The Delaware Valley offers one of the few remaining territories where there is room for substantial industrial development along the Atlantic seaboard, with adequate rail facilities, a good labor market, and at a minimum expenditure for an adequate river channel.

Under these circumstances, it is imperative that if the Delaware River Valley is to progress this project be approved and funds appropriated as promptly as possible.

It is unfortunate that there has become injected into this project the question of local participation in any part or parts of the cost, because the benefits to be derived will redound to the entire country—particularly from the standpoint of industrial development and possibly directly in support of any future defense effort.

Your wholehearted support of this most worthwhile project for the benefit of the entire Nation is urgently recommended.

Sincerely yours,

WALTER S. FRANKLIN.

BRISTOL, PA., *June 1, 1954.*

Re Senate bill No. 2317.

PUBLIC WORKS COMMITTEE OF THE UNITED STATES SENATE,
Room 412, Senate Office Building, Washington, D. C.

GENTLEMEN: I am a resident of Bristol Borough owning approximately 160 feet of land along the bank of the Delaware River. I have been advised that Senate bill No. 2317 on which your committee held a public hearing May 13, 1954, is before you for your consideration and that this bill provides for the deepening of the channel in the Delaware River to 40 feet.

I fear that the deepening of the channel to a depth of 40 feet may result in serious damage to my property on the bank of the river. If such damage should occur, I would expect to be compensated by the United States of America for the same.

Very truly yours,

JOSEPH R. GRUNDY.

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